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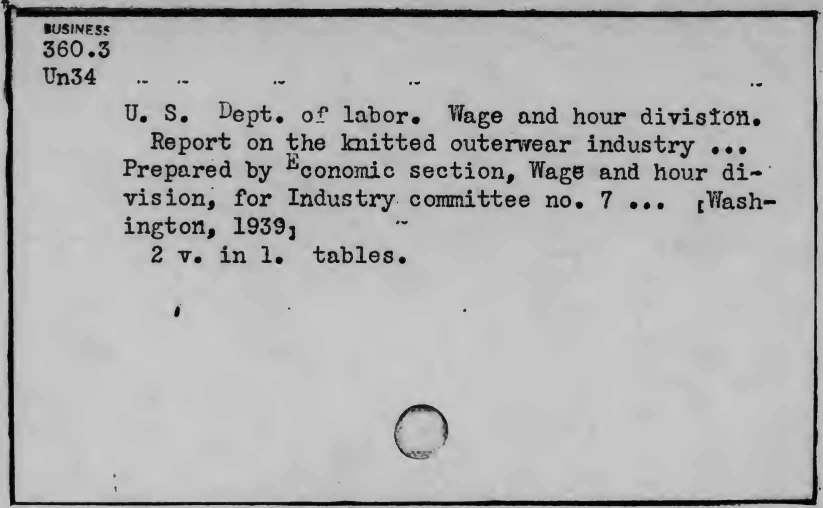

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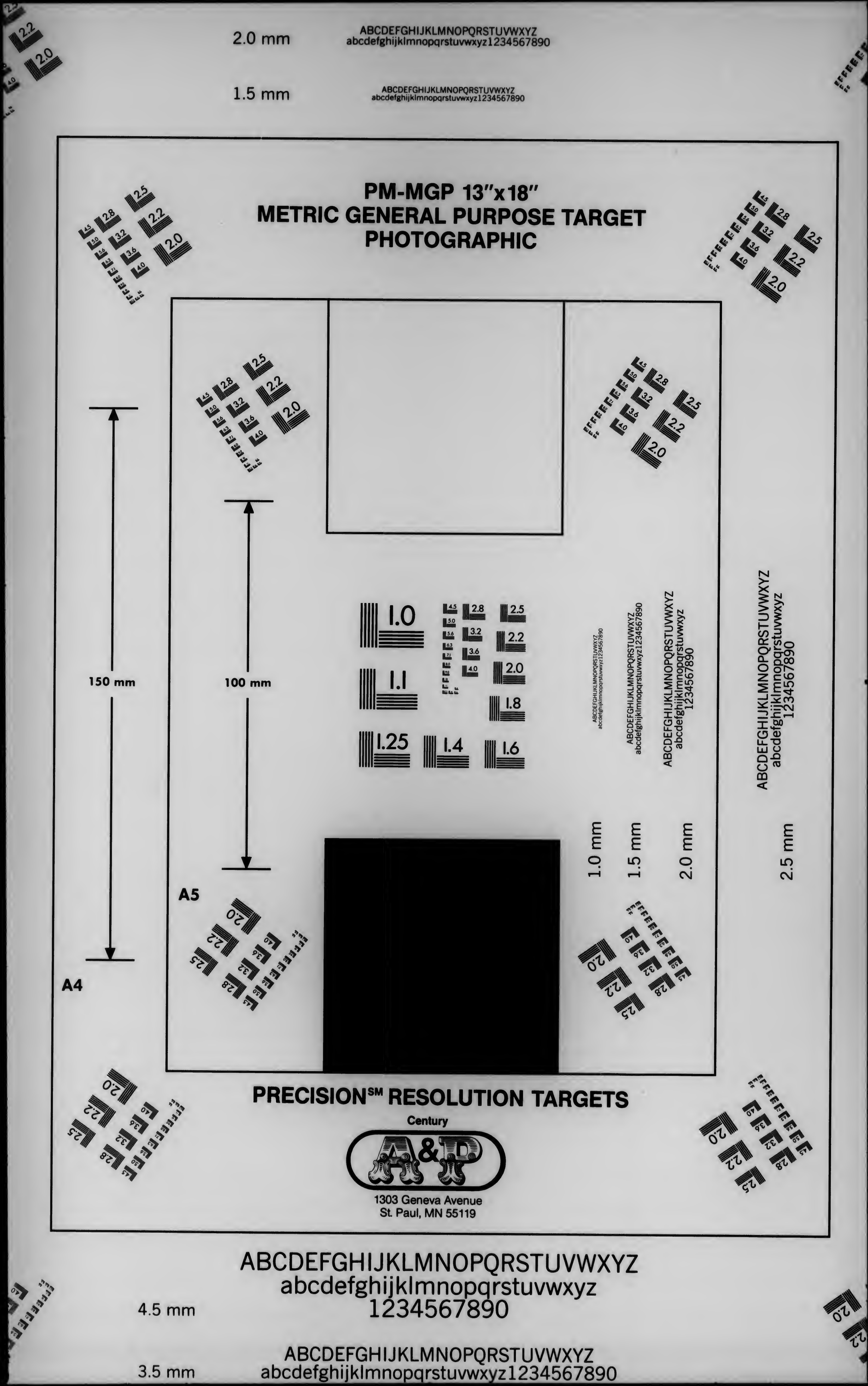

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REPORT ON THE KNITTED OUTERWEAR INDUSTRY
PARTS 1-2.

PREPARED BY ECONOMIC SECTION, WAGE AND
HOUR DIVISION, FOR INDUSTRY COMMITTEE No 7

Pt 1-2

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REPORT ON
THE
KNITTED OUTERWEAR INDUSTRY

PART I

Prepared by Economic Section,
Wage and Hour Division, for
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INTRODUCTION

The Fair Labor Standards Act (Section 8-b) states that an industry committee "shall recommend to the Administrator the highest minimum wage rates for the industry which it determines, having due regard to economic and competitive conditions, will not substantially curtail employment in the industry".

The purpose of the report prepared by the Economic Section is to provide Industry Committee No. 7 with a description of economic and competitive conditions in the Knitted Outerwear industry, with special reference to factors influencing employment. It incorporates the data available from reliable sources, including a survey of earnings and hours made by the U.S. Bureau of Labor Statistics and a special survey of costs made by the Economic Section.

The report is composed of three major sections. The first presents factors bearing on the question of possible not substantial curtailment of employment in the industry as a whole. This section includes a definition and description of the industry; a consideration of production, distribution, and competitive economics; N.R.A. experience with wage rate increases; and finally computations and analyses, based on the U.S. Bureau of Labor Statistics wage study, as to the effects of various possible minima on costs, prices, and demand for the industry as a whole.

The second section deals with various factors bearing on competitive conditions in the industry which might conceivably alter any tentative conclusions regarding not curtailment of employment occasioned by the initial examination of the industry as a whole.

The third section also deals with factors bearing upon competitive conditions, but has special reference to the question of establishing classifications within the industry as provided for in Section

8(c) of the Act.

The report is divided into two parts, for convenience in handling.

Part I covers that portion of the first Section, described above, which relates to the general description of the industry. Part II continues the presentation of the first Section by introducing calculations on the effects of various minimum wage rates on the industry as a whole. The remainder of Part II covers the second and third sections and contains further calculations and analyses directed towards the effects of such minima for groups of plants and data with respect to classifications as provided for under the Act.

REPORT ON THE
KNITTED OUTERWEAR INDUSTRY

I. FACTORS BEARING ON THE QUESTION OF NET SUBSTANTIAL CURTAILMENT OF EMPLOYMENT IN THE INDUSTRY AS A WHOLE

A. DEFINITION

The knitted outerwear industry embraces the manufacture of a considerable variety of knitted apparel of which sweaters, bathing suits, headwear, dresses and suits, and infants' wear may be mentioned as examples.

In Administrative Order Number 29 appointing Industry Committee No. 7, signed September 18, 1939, the industry is defined as follows:

"The term 'knitted outerwear' as used in Section 2 of Administrative Order No. 7 appointing Industry Committee No. 2 for the Apparel Industry, refers to the manufacture of all knitted garments, garment sections and accessories included in the following definition.

"For the purpose of this order, the term 'knitted outerwear industry' means:

> "The knitting from any yarn or mixture of yarns and the further manufacturing, dyeing or other finishing of knitted garments, knitted garment sections or knitted garment accessories for use as external apparel or covering which are partially or completely manufactured in the same establishment as that where the knitting process is performed; provided that the manufacturing, dyeing or other finishing of the following shall not be included:
>
> "1. Knitted fabric, as distinguished from garment sections or garments, for sale as such.
>
> "2. Fulled suitings, coatings, topcoatings, and overcoatings.
>
> "3. Garments or garment accessories made from purchased fabric.
>
> "4. Gloves or mittens.
>
> "5. Hosiery.
>
> "6. Knitted garments or garment accessories for use as underwear, sleeping wear, or negligees.

"7. Fleece-lined garments made from knitted fabric containing cotton only or containing any mixture of cotton and not more than 25 percent, by weight, of wool or animal fiber other than silk.

"8. Knitted shirts of cotton or any synthetic fiber or any mixture of such fibers which have been knit on machinery of 10-cut or finer; provided that this exception shall not be construed to exclude from the knitted outerwear industry the manufacturing, dyeing or other finishing of knitted shirts made in the same establishment as that where the knitting process is performed, if such shirts are made wholly or in part of fibers other than those specified in this clause, or if such shirts of any fiber are knit on machinery coarser than 10-cut."

Originally it was proposed that the knitting of fabrics be placed within the definition of the textile industry. Administrative Order No. 1, issued on September 13, 1938, defines the textile industry to include:

"(D) the manufacturing, bleaching, dyeing, or printing of knitted fabrics (other than hosiery or woolen and wool-mixed overcoatings and suitings) from any fabric or yarn."

Hearings were held on November 1-3, 1938 by Sub-Committee "B" of Industry Committee No. 1 to consider this plan. After extensive deliberation, the Sub-Committee unanimously recommended certain modifications of the definition for the textile industry of which the following are pertinent to defining the scope of knitted outerwear manufacture:[1]

1. "That the manufacturing, bleaching, dyeing or printing of knitted fabrics be removed from the jurisdiction of Industry Committee Number 1, by the deletion of Clause (D) from the definition of the 'textile industry' setforth in Administrative Order Number 1.

2. "That the further processing of knitted fabrics be placed under the same industry committee or committees

---

[1] Report of the Textile Committee Hearing, Volume 1, p. 2.

as may be given jurisdiction over the manufacture of these fabrics.

3. "That some duplication of public membership be arranged to assist in coordinating the wage recommendations, as between Industry Committee Number 1 and the committee, or committees, having jurisdiction over knit garments, and also some duplications of public membership between the committees having jurisdiction over knit garments and that which may have jurisdiction over related types of apparel ....."

The present definition of the knitted outerwear industry is the result of findings made by this Sub-Committee and of subsequent studies to determine inclusions and exclusions which would least disturb the existing relationships between this and closely allied industries.

In a memorandum submitted to Sub-Committee "B", the National Knitted Outerwear Association [1/] contended that the afore-mentioned Clause (D) seemingly included the production of fabrics used in the knitted outerwear industry, while the finished products remained unclassified. It was further contended that knitted outerwear manufacturing constitutes a unified industrial entity and that the knitting of the fabric cannot practicably be separated from the further manufacturing and finishing of the ultimate product in that all operations are coordinated and ordinarily carried on in the same plant. In other words, the industry is characteristically integrated and processes the raw material, the yarn, through all stages of manufacture until ready for consumption. In consequence, the allocation of fabric-knitting to the textile industry would have split knitted outerwear plants apart, insofar as wage

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[1/] November 3, 1938.

recommendations were concerned, or else would have included garment production as well as knitting within the textile definition. The first alternative would have done violence to the knitted outerwear industry organization as established by prevailing methods of manufacture. The second alternative would have required the industry committee for the textile industry to consider operations which are foreign to the manufacture of fabrics. These and other contentions by various interested groups were received favorably by Sub-Committee "B", resulting in the recommendation to eliminate the knitting of fabric from the textile industry.

Further study of the knitted outerwear and of the knitted underwear and commercial knitting industries resulted in the conclusion that two separate committees should be established in order best to serve their respective interests.

1. Inclusions

The manufacture of knitted outerwear is not readily subject to definition by mere enumeration of its products, due in part to the variety of articles produced and to the fact that the relative importance and even existence of particular types depend upon changing trends in style and demand. Moreover, any one manufacturer may turn from the production of sweaters or other garments during one period of the year to the production of bathing suits or other products during another season. Further, if conditions warrant, he may completely abandon the manufacture of one item or add a newly developed article to this production schedule. This results from the fact that both knitting equipment and operators can be shifted to the production of more than one type of garment.

Nor can fiber content or gauge of machine be used as a general method of defining knitted outerwear products, since style factors cause changes in both fiber and gauge from year to year.

Although the following list of garments and accessories embraces the bulk of present knitted outerwear production, it can not be considered all-inclusive:

a. Sweaters, sweater coats and jerseys, including sport jackets, cardigans, pull-over or slip-over sweaters and jackets.

b. Bathing suits and trunks.

c. Suits and dresses.

d. Athletic apparel, including ski suits, snow suits and skating outfits.

e. Neckwear, including neckties, scarfs and mufflers.

f. Infants' wear, including sweaters, sacques, caps, toques, hoods, booties, mitts or mittens, combination sets, leggings, afghans and other coverings.

g. Novelties of various types, including bed jackets, knitted bed room slippers and other footwear.

In brief, the definitive characteristic of the industry does not lie in the particular products manufactured at any given time but in the knitting process itself. In other words, the knitting from yarns into fabric or garment sections is an integral part of completion of the final garment and is ordinarily carried on in the same establishment.

It is readily evident that some products bearing the same names as those just listed are manufactured in the apparel industry, and that often these are made of knitted fabric. However, a definite distinction exists, since fabrication in the apparel industry is confined to cut and sew work on purchased knit cloth and so is entirely segregated from the knitting process; whereas knitted outerwear mills consistently knit the fabric or garment sections as one of various interrelated stages of manufacture for a specific and preconceived type of garment.[1] By contrast, the products made from purchased knitted cloth consist exclusively of tailored garments.

There are but two exceptions to this important characteristic of complete integration of manufacture within the same plant. One is when knitted sections of garments are sent outside the plant to homeworkers for hand joining, sewing, embroidery, and other finishing. This practice is used extensively in the production of infants' wear. However, most homework operations embrace the entire manufacturing process from yarn to finished product and so are integrated in the same manner as in the typical knitting mill which conducts all operations upon its own premises. The other exception to complete integration arises from the contract system of production whereby many jobbers also act as partial manufacturers in that they own and consign the yarn and frequently design garments and finance production through contractors who carry on the actual operations.

2. Exclusions

The knitted outerwear industry is part of the general category of knit-goods, and hence exclusions have been carefully specified in the definition of this industry. All of the products there excluded have been assigned to the jurisdictions of other industry committees. These exclusions may be explained in the order mentioned in the definition.

---

[1] National Knitted Outerwear Association, Memorandum to Sub-Committee "B", op cit.

1. Knitted fabric, as distinguished from garment sections or garments, for sale as such has been assigned to the underwear and commercial knitting industry committee, which embraces all knit-goods other than hosiery, gloves, and outerwear. Knitted fabric made for sale is not related to the integrated operations characteristic of knitted outerwear production.

2. The knitting of fulled suitings, coatings, topcoatings, and overcoatings containing more than 25 percent of wool was specifically encompassed by the woolen textile industry committee, and those with less than 25 percent of wool by the committee with jurisdiction over underwear and commercial knitting. For the same reason, as in the case of knitted fabric made for sale as such, these fabrics are not properly a part of knitted outerwear, as defined herein.

3. Garments or accessories made from purchased fabric are produced by the apparel industry and have been so assigned.

4. Gloves and mittens, where the knitting and fashioning represent an integrated operation, are mainly produced in a few specialized plants;[1] whereas the bulk of knitted gloves do not involve an integrated process but are cut and sewn from knitted fabric. In either case, knitted gloves were found to be directly competitive with those of woven or other material to the extent that the phrase "manufacturing of all gloves" has been included in the definition of the

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[1] The 1937 Census of Manufacturer lists 15 such establishments.

apparel industry.

5. Hosiery is produced by a separate knit-goods industry, and has been so designated.

6. Knitted garments or accessories for use as underwear, sleeping wear, and negligees constitute major products of the knitted underwear and commercial knitting industry and have been so assigned.

7. Cotton fleece-lined garments, containing not more than 25 percent of wool, a designation at present chiefly confined to sweat-shirts, are commonly manufactured in underwear mills. By mutual agreement between the Underwear Institute and the National Knitted Outerwear Association, these were included in the underwear definition. Fleece-lined garments containing more than 25 percent of wool are allocated to the knitted outerwear industry if further processing is integrated, namely if the further processing is wholly or partially carried on in the same establishment as that which knits the fabric. However, if made of purchased knit fabric, they are part of the apparel industry.

8. The same situation applies in the case of knitted shirts, commonly called polo shirts, which are made of cotton, rayon, or mixtures of the two and knit on machinery of 10-cut or finer. These were also specifically included in the underwear rather than outerwear definition by mutual agreement between the respective associations.

3. Overlaps

The exceptions listed in the definition indicate that a certain amount of overlapping exists between the knitted outerwear and other knitting industries. The Association stated:

> "The outerwear industry developed as a branch of the textile industry. Its immediate parentage is in the hosiery and underwear industries. Together these industries stand closely related ..... The first knitted outerwear plants were the offspring of underwear mills." 1/

This historical background accounts for the appreciable proportion of mills producing knitted outerwear as well as other knitted products as shown in Table 1.

Table 1. -- Knitted Outerwear Industry: Extent of Overlap With Other Knit Goods Industries, 1935 and 1938

Classification by Type of Product	1935		1938	
	Number of Plants	Percent of Total	Number of Plants	Percent of Total
Outerwear only	656	76.5	591	72.1
Outerwear and hosiery	55	6.4	39	4.8
Outerwear and underwear a/	105	12.3	144	17.6
Outerwear, hosiery, and underwear a/	41	4.8	45	5.5
TOTAL	857	100.0	819 b/	100.0

Source: 1935 -- N.R.A. Work Materials No. 80, March 1936, Table III, p. 12 - Data compiled from Davison's Knit Goods Trade, 1935 Edition.
1938 -- Data compiled from Davison's Knit Goods Trade, 1938 Edition.

a/ Producers of knitcloth for sale are included with underwear.

b/ In addition, 4 firms were classified as producing outerwear and miscellaneous knitgoods.

1/ Memorandum to Sub-Committee "B", op cit., pp. 5 and 6.

In 1938 the plants involved in the overlapping just mentioned apparently constituted nearly 28 percent of the total. The average size of these plants, as measured by knitting machines of all types in place, was considerably greater than for mills producing outerwear exclusively, so that they may represent a higher proportion of total outerwear production.[1] Most of this overlap exists between producers of knitted outerwear and of underwear or knitcloth for sale. These, in 1938, accounted for nearly 18 percent of the mills; while producers of outerwear and hosiery, or of outerwear in combination with hosiery and underwear were fewer in number. The proportion of overlap plants in recent years appears to be slightly larger than in 1935. However, this difference does not necessarily reflect a trend toward manufacturing combined products.[2]

Nevertheless, knitted outerwear products with rare exceptions are easily distinguishable from either underwear or hosiery products, and the integrated method of manufacture for outerwear further clarifies their separability. Further, much of the apparent overlapping between producers of outerwear and those of underwear may be accounted for by two products, sweat shirts and polo shirts. Since these have been specifically excluded from the definition of the knitted outerwear industry and placed under the definition of the underwear and commercial knitting industry, the overlapping between the two has been considerably diminished as compared with that shown in Table I.

1/ See section on "Excess Capacity" for further detail.

2/ As is described in a later section on "Plant Mortality", many new and small firms entered the industry in 1935, apparently producing outerwear exclusively, and the total number of such plants has since declined. Plant turnover in this group could more than offset the differences in percentages noted in 1935 as compared to 1938.

No overlapping of consequence exists between the knitted outerwear and yarn manufacturing industries. In 1938, 17 knitted outerwear mills, or only 2 percent of the total, reported the operation of spindles.[1] Nor is there overlapping between this and the apparel industry, since apparel establishments take no part in the knitting process.

B. DESCRIPTION OF THE INDUSTRY

Although hand knitting is an ancient craft, the knitted outerwear industry with its mass manufacture of sweaters and other knitted apparel is of relatively late origin and has seen its greatest development in the present century, particularly since 1910. During pre-war years, such products began to enjoy an increasing popularity. Demand was further stimulated during the war by the requirements of the armies, and subsequently by considerable improvements in machine technology and in the quality and variety of yarns. Like many other apparel industries, style factors have become of considerable importance, and producers in recent years have constantly searched for novelty in yarns, stitches and designs.[2]

1. Production Economics

a. Size

The industry has never been large in size as compared to many others, nor as compared to the hosiery or the underwear and commercial knitting industries, both of which are also part of the general knit-goods group. Further, whatever the measure of size, whether in terms of number of mills, employment, value of product, or value added by manufacture, the knitted outerwear industry has not since equalled the peak occurring in 1923 which was occasioned by war-time and post-war expansion. As in most lines of business activity, 1929 was an exceptionally good year, and was followed by a depression decline that continued through 1933. A decisive improvement was noted during the N.R.A. period, the greatest expansion taking place in 1935. Subsequently, a recession has been felt which is understood to have extended into 1938.[1] This recent slump has been attributed to a slackening in demand since 1935 for women's knitted dresses and suits; to a style shift, particularly for women, towards woven or rubber bathing suits; and for men, towards bathing trunks rather than complete bathing suits.

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[1] Compiled from Davison's Knit Goods Trade, 1938 Edition.

[2] N.R.A. Work Materials, No. 80, Part D, The Knitted Outerwear Industry, by Willis H. Ray, March 1936, pp. 184-5.

The general Census statistics through 1937 presented in Table 2 bear out this analysis of trend in size. The data are subject to the various limitations discussed below, but are believed to represent fairly accurately the trend from year to year as just described.

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[1] National Knitted Outerwear Association, Interview with Mr. Sidney Korzenik, July 19, 1939. Also Interviews with individual manufacturers, July 19 - 24, 1939.

Table 2. — Knitted Outerwear Industry: General Census Statistics for Selected Years, 1923-1937[a]

Year	Number of Establishments	Wage Earners (Average for Year)	Wages ($1000)	Cost of Materials b/ ($1000)	Cost of Contract Work ($1000)	Value of Product c/ ($1000)	Value Added by Manufacture ($1000)
1923	1,128	41,503	40,824	110,188	7,131	208,758	98,569
1925	874	27,986	27,738	77,548	3,194	143,502	65,954
1927	775	24,662	26,200	64,123	2,650	125,941	61,818
1929	757	28,968	28,934	75,876	2,501	147,249	68,872
1931	710	26,142	24,744	55,571	3,499	111,573	52,502
1933	601	26,908	19,574	47,492	3,189	92,547	41,866
1935	758	35,455	30,170	67,414	4,185	131,455	59,856
1937 d/	684	29,321	23,675	57,391	4,463	112,631	50,777
				Index (1929 = 100)			
1923	149.0	143.3	141.1	145.2	285.1	141.8	143.1
1925	115.5	96.6	95.9	102.2	127.7	97.5	95.8
1927	102.4	85.1	90.6	84.5	106.0	85.5	89.8
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1931	93.8	90.2	85.5	73.2	139.9	75.8	76.2
1933	79.4	92.9	67.7	62.6	127.5	62.9	60.8
1935	100.1	122.4	104.3	88.8	167.3	89.3	86.9
1937 d/	90.4	101.2	81.8	75.6	178.4	76.5	73.7

Source: Census of Manufactures, 1929, 1935, 1937.

a/ Excluding establishments with products valued under $5,000. Includes establishments producing knitted gloves and mittens, athletic and golf hose, sport and polo shirts.

b/ Includes supplies, containers, fuel, and purchased electric energy.

c/ Includes value of all products of establishments primarily engaged in the production of knitted outerwear. Also includes receipts for contract work, since not reported separately from value of product prior to 1929, and separate data are not yet available for 1937.

d/ Athletic and golf hose not included for 1937, as these were shifted by the Census to the hosiery classification.

(1) Number of employees [1]

Wage earners, as reported by the Census and shown in Table 2, numbered nearly 42,000 in 1923 as compared with nearly 29,000 in 1929. The declines during the depression of 1930-33 were followed by an increase to over 35,000 in 1935, a net increase of more than 22 percent above the 1929 level. The recent decline resulted in a drop to somewhat above 29,000, or slightly over the figure reported in 1929.

Salaried employees represent but a small proportion of the total. Data are lacking for 1923, 1931 and 1933. For the remaining Census years between 1925 and 1937, the number reported fluctuated between 3,468 in 1925 and 2,868 in 1937, a range of 600. The number in 1935 almost equalled that in 1925 and exceeded the figure of 3,261 in 1929 by nearly 200.

(2) Number of establishments

The limitations of statistical reporting for this industry can best be described with respect to number of establishments since Davison's Knit Goods Trade offers a basis for comparison with the Census data. The appreciable discrepancy in the reports from these two sources is shown in Table 3, and arises from difficulties in classification, the preponderance of small firms, and the existence of fly-by-night firms on some of which no records exist.

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[1] Exclusive of homeworkers. A detailed analysis of employment data is presented in a later section dealing with labor factors.

Table 3. -- Knitted Outerwear Industry: Number of Establishments, Selected Years, 1929-1938

Year	Reported by Census of Manufactures	Reported by Davison's Knit Goods Trade b/
1929	757 a/	924
1931	710 a/	857
1933	601 a/	846
1935	758 a/	923
1937	669	880
1938	-	856

a/ 1929-1935: includes knitted gloves and mittens and athletic and golf hose establishments which were not reported separately until 1937.

b/ Excludes knitted gloves and mittens, and athletic and sport hose establishments, except where produced by knitted outerwear mills reporting. Includes a few producers of miscellaneous knitgoods, which in 1938 amounted to 29 plants. In addition, 4 mills were operated by state penitentiaries rather than by private concerns. The number for previous years is not known.

It is evident that Davison's reports a considerably greater number of establishments than does the Census, amounting to a difference of over 200 in 1933 and 1937. However, the downward trend from 1929 to 1933, the increase in 1935, and the subsequent decline are revealed by both sources. A careful examination of methods of classifying establishments indicate that the Davison's data may approximate the actual number more closely, and Census figures therefore may represent some degree of understatement throughout. Whenever possible, both sources are used in this report.[1]

(3) Wages and salaries[2]

Wages, as reported by the Census and shown in Table 2, closely followed the trend in employment from year to year, although at a slightly lower level in comparison to 1929. Wage payments in that year amounted to about $29,000,000, and fell steadily through 1933, but rose to over $30,000,000 in 1935, or 4.3 percent above 1929. Wages showed a loss in 1937 that was more severe than the loss of employment, involving a drop in payrolls to 82 percent of the 1929 level.

Data on salaries are not available for 1923, 1931, and 1933. The total of over 8½ million dollars in 1925 was surpassed in 1929, when salaries aggregated nearly 10 million dollars. The figures for 1935 and 1937 were 7.7 and 6.6 million dollars respectively.

(4) Cost of materials

Raw materials costs fluctuated very considerably, but showed the same general long-range trend, falling between 1923 and 1929 from 110 to 76 million dollars, and to 47 million dollars in 1933; rising in 1935 to over 67 million dollars or 89 percent of the 1929 level; and dropping to 57 million dollars in 1937 or to 76 percent of the 1929 costs.

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[1] Various reasons account for the smaller number of establishments reported by the Census: (a) producers of both knitted outerwear and other knitgoods are reported only when outerwear constitutes the major product; (b) firms with value of product under $5,000 are not covered; and (c) a number of firms may have been temporarily shut down at the time the Census was made. One further reason accounts to some extent for the larger number of establishments reported by Davison's Knit Goods Trade, namely, a number of plants appear to be reported both under outerwear and underwear classifications or under outerwear and hosiery when such products are produced, thus involving some duplication.

[2] Exclusive of wages to homeworkers. Amplified treatment of payrolls data is provided in a later section on labor factors.

(5) Value of product [1]

Again the same trend between years was shown for value of product, including receipts for contract work. The high point of nearly 208 million dollars was reached in 1923. For 1929, a total of 147 million was reported and, after the depression lapse, rose to over 131 million. A decline was evident in 1935, total value in that year amounting to not quite 113 million dollars or close to 77 percent of the 1929 level.

(6) Value added by manufacture [2]

This measure of size as used by the Census represents the increment created by the manufacturing processes, namely, total value of product less the cost of materials, fuel, and electric energy. Value added by manufacture also followed the trend described for the other measures of size, falling from nearly 99 million dollars in 1923 to 69 million in 1929, and thence to but 42 million in 1933. The sharp rise to 60 million dollars in 1935 brought the index to 87 percent of 1929; while the reduction in 1937 to 51 million represented 74 percent of the 1929 base.

(7) Production, by types of garments

Numerous types of garments and accessories are produced in knitted outerwear mills and these vary in importance from year to year. This is indicated in Table 4 which shows the percentage that each major product classification represents of total value of product for the census years 1929 through 1937.

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[1] Includes homework production.

[2] Includes homework production.

Table 4. -- Knitted Outerwear Industry: Percent of Total Value of Product by Product Classifications in Selected Years, 1929 to 1937

Product	1929	1931	1933	1935	1937
Total Knitted Outerwear	100.0%	100.0%	100.0%	100.0%	100.0%
Sweaters, Sweater-coats and Jerseys	61.6	52.3	53.2	48.8	56.0
Bathing Suits	15.2	12.0	12.6	12.8	16.4
Dresses and Suits	7.7	19.3	17.1	20.6	9.8
Scarfs, Shawls, and Mufflers	0.8	0.5	1.2	1.7	0.7
Neckties	1.2	0.3	0.2	0.9	0.1
Headwear	2.6	3.1	3.8	3.4	2.7
Infants' Wear	5.8	7.8	6.3	7.9	9.5
Other	5.1	4.8	5.5	3.8	4.8

Source: Computed from Census of Manufactures, 1929-1937.

Sweaters and jerseys of various types accounted for more than 50 percent of total knitted outerwear value in each year for which data are available, except 1935. Their importance was greatest in 1929 and declined in 1935 by reason of the vogue for dresses and suits for women. These, in turn, fell off in 1937 and may have suffered further losses since that date. Bathing suits rose in importance by 1937, but are understood to have declined more recently. Infants' wear, on the other hand, has shown an almost steady increase in relative importance, and in 1937 accounted for nearly one-tenth of total value. The various other items are of relatively little importance.

The physical volume of production for these major types of knitted outerwear are presented in Table 5 for the Census years 1929 through 1937, together with an index of production trends during that period. It may be observed that the sweater group, representing by far the greatest volume, ranged between four and five million dozen annually, with production reaching its lowest point in 1931, rising to above the 1929 level in 1933, falling considerably in 1935 and rising again to within 2 percent of the 1929 level in 1937. The volume of bathing suits fell appreciably to not quite 82 percent of 1929 production in 1933, then rose to over 18 percent above that level in 1937. In these cases and particularly for all other items, the variation from year to year is attributable primarily to style factors and shifts in consumer demand towards or away from certain knitted outerwear products. For example, the vogue for knitted dresses and suits brought production to nearly four times the 1929 volume by 1935, and a decline in such demand has been apparent since then.

The value of product data for these classifications of knitted outerwear is shown in Table 6. In general, the trend in value was at a somewhat lower level than for quantity of production. None of the items listed, except infants' wear, equalled 1929 value in 1937, the latest year for which data are available. However, the marked improvements in 1935 over 1933 depression levels were surpassed in 1937 for the two most important product groups, sweaters and bathing suits, and infants' wear showed marked gains over any preceding year. Losses

Table 5. — Knitted Outerwear Industry: Quantity of Production by Major Product Classifications in Selected Years, 1929 to 1937

Production, by Types (in dozens)

Year	Sweaters, Sweater-coats and Jerseys	Bathing Suits	Dresses and Suits	Scarfs, Shawls, and Mufflers	Neckties	Headwear	Infants' Wear	Ski Suits
1929	4,807,422	1,021,433	85,287	126,911	627,727	783,425	b/	b/
1931	4,031,518	962,532	242,178	58,497	130,568	1,078,014	b/	b/
1933	4,999,058	833,253	242,338	178,453	56,422	1,147,287	b/	b/
1935	4,385,747	989,589	335,925	292,503	255,215	969,400	b/	b/
1937	4,712,048	1,206,586a/	148,983a/	121,174a/	69,387	858,894	904,397	5,407

Index (1929 = 100)

Year	Sweaters, Sweater-coats and Jerseys	Bathing Suits	Dresses and Suits	Scarfs, Shawls, and Mufflers	Neckties	Headwear	Infants' Wear	Ski Suits
1929	100.0	100.0	100.0	100.0	100.0	100.0	b/	b/
1931	83.9	94.2	283.3	46.0	20.7	137.6	b/	b/
1933	103.9	81.6	283.5	140.4	9.0	146.4	b/	b/
1935	91.2	96.9	393.0	230.2	40.6	123.7	b/	b/
1937	98.0	118.1	174.3	95.4	11.0	109.6	b	b/

Source: Census of Manufactures for years given.

a/ Contract factories not included to avoid disclosing data reported by individual establishments.
b/ No data available.

Table 6. — Knitted Outerwear Industry: Value of Product, by Major Product Classifications in Selected Years, 1929 to 1937.

Production by Value (in thousands of dollars)

Year	Total	Sweaters, Sweater-coats and Jerseys	Bath-ing Suits	Dresses and Suits	Scarfs, Shawls, and Mufflers	Neckties	Headwear	Infants' Wear	Other
1929	$145,086.2	$89,428.9	$22,084.3	$11,160.1	$1,163.1	$1,717.1	$3,783.1	$8,393.7	$7,355.8
1931	107,299.4	56,076.7	12,859.5	20,689.5	553.9	327.1	3,279.2	8,337.5	5,176.1
1933	90,166.6	47,961.6	11,348.6	15,405.8	1,089.2	219.1	3,476.7	5,688.5	4,977.1
1935	113,395.1	55,342.3	14,551.0	23,375.5	1,896.3	1,018.9	3,875.1	8,974.7	4,361.4
1937	105,885.3	59,246.6	17,319.9a/	10,380.4a/	707.1a/	156.6	2,854.0	10,080.4	5,140.2b/

Index (1929 = 100)

Year	Total	Sweaters, Sweater-coats and Jerseys	Bath-ing Suits	Dresses and Suits	Scarfs, Shawls, and Mufflers	Neckties	Headwear	Infants' Wear	Other
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1931	73.9	62.7	58.2	185.4	47.6	19.0	86.7	99.3	70.4
1933	62.1	53.6	51.4	138.0	93.6	12.8	91.9	67.8	67.7
1935	78.2	61.9	65.8	209.4	163.0	59.3	102.4	106.9	59.3
1937	73.0	66.2	78.4	93.0	60.8	9.1	75.4	120.1	69.9

Source: Census of Manufactures.

a/ Contract factories not included to avoid disclosing data reported by individual establishments.
b/ Includes items covered by footnote a/ and also ski suits valued at $466,293 which are listed separately in 1937.

were evident for dresses and suits and for the other minor products which together accounted for the decline in total value of all products between 1935 and 1937.

(8) Cost of Contract Work

It is worthy of note in Table 2 that cost of contract work has become an increasingly important item in recent years, the amount in 1935 and 1937 exceeding that for any preceding year except 1923. Moreover, in 1937, cost of contract work represented 8.8 percent of total value added by manufacture, a percentage not equalled in any of the earlier years. The index reveals this cost to have been over 67 percent greater in 1935 and 78 percent greater in 1937 than in 1929.

It is true that cost of contract work has not represented a large percent of total value added by manufacture in any year. However, the data are more significant than would at first appear. Census statistics for 1937 are available in more detailed form than heretofore, permitting a breakdown between contract and regular factories as well as an exclusion of knitted glove and mitten establishments which are not part of the knitted outerwear industry as here defined. These data are presented in Table 7.

Table 7. -- Knitted Outerwear: General Census Data, Regular Factories and Contract Factories, 1937 a/

	Total	Regular Factories	Contract Factories
Number of establishments	669	505	164
Wage earners (average for the year) b/	26,139	23,424	2,715
Wages b/	$21,553,531	$19,503,525	$2,050,006
Cost of materials, supplies, containers, fuel, and purchased electric energy	$55,112,182	$54,517,668	$594,514
Cost of contract work c/	$4,412,739	$4,349,254	$63,485
Value of products and receipts for contract work d/	$106,836,039	$102,244,481	$4,591,558
Value added by manufacture e/	$47,311,118	$43,377,559	$3,933,559

Source: Census of Manufactures, 1937

a/ Excluding establishments with products valued under $5,000. Excluding gloves and mittens and athletic and golf hose. Includes sport and polo shirts when produced by establishments reporting.

b/ Not including salaried officers and employees, or homeworkers.

c/ Includes wages to homeworkers.

d/ Includes value of homework production.

e/ Value of products less cost of materials, supplies, containers, fuel, and purchased electric energy.

It may be seen that 164 or nearly 25 percent of the 669 establishments reported by the Census were contract factories. Since these firms account for a comparatively slight percentages of total employment, value of product, and value added by manufacture, they appear to include many of the small firms of the industry. It is probable that the number of contract establishments is greater than the Census indicates, and a number of the additional firms reported by Davison's may be of this type. In fact, the NRA Code Authority reported 215 contract firms in 1935,[1] and the Association recently estimated the number to total over 250.[2]

As in other apparel industries, contract factories are distinguished from regular factories in that they do not own their yarn or other raw materials, but accept them on consignment from regular manufacturers, or more frequently, from jobber-manufacturers, also known as contract-employers. Such firms perform a dual role as wholesalers and also as manufacturers in that they own the yarn, frequently design the garments to be produced, and sometimes perform other functions such as furnishing the contractor with operating capital. In effect, therefore, the contractor is often no more than a commission knitter. The position of many firms as jobber-manufacturers or as outright wholesalers can alter readily from time to time as conditions warrant, or both functions can be carried on simultaneously on different goods. Also a regular manufacturer may accept work on contract, or consign other work to contractors, or both. Further, a contractor may also sub-contract part of his work to another contractor. The Census, however, reported only $63,485 as the total cost of such sub-contract work in 1937. (Table 7)

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[1] N.R.A. Work Materials No. 80, op cit., p. 293.

[2] Monograph by Harold L. Lhowe and Sidney S. Korzenik, The Contract System of Production of Infants and Children's Knitted Outerwear under the N.R.A., National Knitted Outerwear Association, November 1, 1938, p. 3.

An appreciable proportion of the total value of sweaters, infants' wear and miscellaneous "other" knitted outerwear is manufactured by contractors. (Table 8) Contract production appears to be negligible in the case of all other types of knitted outerwear, although some contract factories are engaged in the manufacture of knitted dresses, bathing suits, scarfs and ski suits. Contractors were responsible for over 15 percent of total product value for the industry as a whole; over 16 percent for sweaters, the largest product group; over 26 percent for "other" outerwear ; and nearly 53 percent for infants' wear.

Table 8. -- Knitted Outerwear Industry: Value of Product Produced by Contractors as Compared to Total Value, 1937.

Product Classification	Total Value ($1000)	Value of contractor's product	
		Value ($1000)	Percent of total value
Knitted Outerwear, Total	$105,885.3 a/	$16,159.7 a/	15.3
Sweaters, sweater-coats and Jerseys, total	59,246.6	9,546.9	16.1
Infants' outerwear (except bathing suits)	10,080.4	5,330.5	52.9
Dresses and suits	10,380.4	50.8	e/
Bathing suits	17,319.9	b/	b/
Scarfs, shawls and mufflers	707.1	b/	b/
Knit headwear (except infants')	2,854.0	d/	--
Neckties	156.6	d/	--
Ski suits	466.3	b/	b/
Other outerwear	4,673.9	1,231.5 c/	26.3

Source: Census of Manufactures, 1937.

a/ Does not include knit polo or sport shirts.

b/ Contract factories not included to avoid disclosing data reported by individual establishments.

c/ Includes items covered by footnote b/.

d/ No contract work reported.

e/ Less than .1 of one percent.

b. Scale

(1) Average size of regular, contract, and all factories

The knitted outerwear industry is one in which small firms predominate. This characteristic has both its advantages and disadvantages. Small scale units have shown themselves better adapted to the production of novelty garments, particularly in the women's field where styling frequently spells the difference between profit and loss. Usually such mills have greater flexibility, an important advantage in a style industry. On the other hand, this advantage to small firms carries its attendant difficulties. The very ease of entrance of new producers into the industry often leads to operations backed by insufficient capital, creating a chronic condition of financial instability.

The small-scale nature of the knitted outerwear industry is indicated by the Census average for 1937 of only 39 workers per establishment, average value of products of somewhat less than $160,000, and a value added by manufacture averaging slightly over $70,000. Regular factories, as distinguished from contract factories, have a larger average size in terms of workers; regular factories employing an average of 46 per establishment as compared with an average of 13 workers among contract factories. In terms of value added by manufacture, the respective averages were about $86,000 and $24,000 per year. (Table 9.)

Table 9. -- Knitted Outerwear Industry: Wage Earners, Value of Product and Value Added by Manufacture per Establishment, Contract and Regular Factories, 1937. a/

	Total	Regular Factories	Contract Factories
Wage earners per establishment	39	46	13
Value of products and receipts for contract work per establishment.	$159,695	$202,464	$ 28,000
Value added by manufacture per establishment.	70,719	85,897	23,988

Source: Computed from data of the 1937 Census of Manufactures.

a/ Excluding establishments with products valued under $5,000, gloves and mittens, and athletic and golf hose establishments. Includes sport and polo shirts when produced by establishments reporting.

Small-scale operations have apparently been characteristic of the industry for many years, as revealed by Table 10.

Since 1923, the average number of wage-earners per mill has ranged between 32 and 37, and corresponding minor fluctuations are found in the average value of product and value added by manufacture. The slightly greater average number of workers in recent years may be attributed in part to decreases in average weekly hours.

Table 10. -- Knitted Outerwear Industry: Wage Earners, Value of Product and Value Added by Manufacture per Establishment in Census Years, 1923-1937 a/

Year	Wage earners per establishment (average for year)	Value of product per establishment b/	Value added by manufacture per establishment
1923	37	$185,069	$87,384
1925	32	164,190	75,462
1927	32	162,505	79,765
1929	38	194,517	90,980
1931	37	157,145	73,946
1933	45	153,988	69,661
1935	47	173,423	78,966
1937 c/	43	164,665	74,235

Source: Computed from data of the Census of Manufactures.

a/ Excluding establishments with products valued under $5,000. Includes products other than knitted outerwear when produced by establishments reporting.

b/ Includes receipts for contract work, since not reported separately from value of product prior to 1929, and separate data are not yet available for 1937.

c/ Athletic and golf hose not included for 1937 as these were shifted by the Census to the hosiery classification.

The scale of production varies considerably as between different producing districts. Table 11 shows the average number of wage-earners and the average value of product per establishment for each of 13 states in 3 districts, as reported by the Census for 1937.

In the State of New York, which accounts for more than 50 percent of the total plants reported, only 23 wage-earners per establishment were employed, a smaller number than in any other area. Other states reporting fewer than 50 workers per establishment included New Jersey, Illinois, Michigan, California, and Washington. The largest number of wage-earners per establishment (148) was reported in Ohio, followed by "all other" states, for which separate data are not available, with 100 workers per establishment. Average value of product per firm was also greatest in Ohio and in "all other" states. 1/

Although firms in New York are comparatively small, the value of product per wage-earner was $5,087, a greater amount than in any other state. This may be contrasted to Connecticut, Ohio, and Minnesota, all of which show production value of less than $3,000 per wage-earner. The value of product per wage-earner is also comparatively high in California, Massachusetts, Pennsylvania, and Michigan, amounting to over $4,000 in each case and offering a partial indication that more expensive goods are produced in those

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1/ The greater size in the "all other" classification is partially accounted for by a knitting company in Oregon, one of the largest firms in the industry. It appears, however, that at the present time, data for Ohio would show a somewhat smaller average since two of the largest firms in that state are understood to have liquidated.

Table 11. -- Knitted Outerwear Industry: Size of Establishments, By State, According to Number of Wage Earners and Value of Product, 1937

State	Number of Establishments	Wage Earners		Value of Product	
		Number	Average per Establishment	Amount	Average per Establishment
United States, Total	669	26,139	39.1	$106,836,039	$159,695
Northeast					
New York	353	7,970	22.6	40,546,191	114,862
Pennsylvania . . .	87	4,909	56.4	20,573,651	236,479
New Jersey	53	1,571	29.6	4,833,050	91,189
Massachusetts . .	30	2,317	77.2	10,193,412	339,780
Connecticut . . .	6	400	66.6	1,035,203	172,534
Middle West					
Wisconsin	19	1,389	73.1	4,286,917	225,627
Ohio	15	2,214	147.6	6,085,517	405,701
Illinois	14	474	33.8	1,767,617	126,258
Minnesota	8	492	61.5	1,401,169	175,146
Michigan	4	118	29.5	480,414	120,104
West					
California	47	1,662	35.4	7,117,820	151,443
Washington	6	134	22.7	459,898	76,649
Utah	6	384	64.0	1,195,979	199,329
All Other a/	21	2,105	100.2	6,859,201	326,628

Source: Census of Manufactures, 1937.

a/ State totals withheld to avoid disclosing data for individual establishments. This includes Oregon, which has one of the largest establishments in the industry.

areas. This is particularly true of New York and California, where a considerable proportion of the novelty and highly styled merchandise originates.

(2) Size distributions by employees, machines and value of product

Averages, however, have only limited usefulness since they fail to reveal variations between firms. There are, of course, large as well as small firms in the knitted outerwear industry. Indeed, as is disclosed in Table 12, the range is so great that a few establishments employ up to 1,000 workers, while a number of very small family-shop establishments employ no wage-earners whatever, all operations being carried on by the owner or owners and family. The 1937 Census data contained in Table 12 reveal no contract factories of this family-shop type, but this is clearly a case of under-reporting, especially that resulting from the Census rule of not scheduling firms producing less than $5,000 of products per year. As was noted earlier, it may be assumed that a greater number of small firms are in operation than those reporting, and this factor should be taken into account.

As reported, 30 establishments employ no wage-earners, and each of an additional 90 factories employ 5 wage-earners or fewer. Together, these account for 18 percent of all establishments and only one percent of total employment. At the other extreme, 3 factories employ from 500 to 1,000 wage-earners and together they account for nearly 7 percent of total employment. Only 57 establishments, or about 8 percent, employ more than 100 workers and account for approximately half of total employment.

Table 12— Knitted Outerwear Industry: a/ Distribution of Establishments and Wage Earners by Size of Establishment, 1937

Establishments employing:	Number of Establishments			Number of Wage Earners		
	All Factories	Regular	Contract	All Factories	Regular	Contract
Total	669	525	164	26,139	23,424	2,715
No wage earners	30	30	–	–	–	–
1 – 5 " "	90	60	30	287	188	99
6 – 20 " "	284	181	103	3,298	2,193	1,105
21 – 50 " "	138	113	25	4,595	3,812	783
51 – 100 " "	70	68	2	(10,624	4,719	(728
101 – 250 " "	37	33	4	(	5,177	(
251 – 500 " "	17	17	–	5,603	5,603	–
501 – 1000 " "	3	3	–	1,732	1,732	–
	Percent of total establishments			Percent of total wage earners		
Total	100.0	100.0	100.0	100.0	100.0	100.0
No wage earners	4.5	5.9	–	–	–	–
1 – 5 " "	13.5	11.9	18.3	1.1	0.8	3.6
6 – 20 " "	42.5	35.8	62.8	12.6	9.4	40.7
21 – 50 " "	20.6	22.4	15.2	17.6	16.3	28.8
51 – 100 " "	10.5	13.5	1.2	(40.6	20.1	(26.8
101 – 250 " "	5.5	6.5	2.4	(	22.1	(
251 – 500 " "	2.5	3.4	–	21.4	23.9	–
501 – 1000 " "	0.4	0.6	–	6.6	7.4	–

Source: Census of Manufactures, Wage Earners and Wages in Establishments Classified According to Number of Wage Earners, 1937, July 7, 1939.

a/ Excluding establishments with products valued at less than $5,000, and glove and mitten establishments.

The greatest number of firms (284, or nearly 43 percent) reported between 6 and 20 wage-earners, and the second largest group (138 firms, or 21 percent) reported between 21 and 50 workers. Together these two groups, amounting to 63 percent of total establishments, account for but slightly over 30 percent of the employment provided by the industry.

A further indication of size of firm may be gained from a classification of establishments by number of knitting machines in place, as shown for 1938 in Table 13. 1/ These establishments reported a total of 38,374 knitting machines, or an average of 51 machines each. However, this average is heavily influenced by the 209 plants producing other knit goods as well as outerwear, which averaged 107 knitting machines each. For these plants, no information is available as to the number of machines used for knitted outerwear products as distinct from other knit goods. Therefore, greater reliance can be placed on data for the 540 plants producing knitted outerwear exclusively, and these average only 30 knitting machines per establishment.

The range in the number of machines per establishment is great. In plants producing both outerwear and other knit goods, the number varies from approximately 5 to over 1,000 knitting machines, with the majority of establishments (69 percent) having fewer than 100. The number of knitting machines in plants producing outerwear exclusively varies from less than 5 to over 500, while over 69 percent of such mills report fewer than 50.

1/ This table, especially compiled from Davison's Knit Goods Trade, represents 749 plants, a large sample of the knitted outerwear producers listed, since 91 percent of such establishments reported the number of knitting machines.

Table 13 — Knitted Outerwear Industry: Classification of Establishments Reporting Knitting Machines by Number of Knitting Machines in Place, 1938 a/

	Total plants			Plants producing only outerwear			Plants producing outerwear and other knit goods		
	Number	Percent of total		Number	Percent of total		Number	Percent of total	
		Simple	Cumulative		Simple	Cumulative		Simple	Cumulative
Total Number of plants reporting knitting machines	749	100.0	100.0	540	100.0	100.0	209	100.0	100.0
Under 5	20	2.7	2.7	20	3.7	3.7	–	–	–
5 and under 10	112	15.0	17.7	97	18.0	21.7	15	7.2	7.2
10 " " 25	294	39.2	56.9	256	47.4	69.1	38	18.2	25.4
25 " " 50	127	16.9	73.8	80	14.8	83.9	47	22.4	47.8
50 " " 100	102	13.6	87.4	58	10.7	94.6	44	21.1	68.9
100 " " 150	40	5.3	92.7	19	3.5	98.1	21	10.0	78.9
150 " " 200	15	2.0	94.7	4	0.7	98.8	11	5.3	84.2
200 " " 300	23	3.1	97.8	3	0.6	99.4	20	9.6	93.8
300 " " 400	5	0.7	98.5	1	0.2	99.6	4	1.9	95.7
400 " " 500	5	0.7	99.2	1	0.2	99.8	4	1.9	97.6
500 " " 1,000	5	0.7	99.9	1	0.2	100.0	4	1.9	99.5
Over 1,000	1	0.1	100.0	–	–		1	0.5	100.0
Total Machines reported	38,374	100.0	–	16,075	41.9	–	22,299	58.1	–
Average per estab'ment	51.2	–	–	29.8	–	–	106.9	–	–

Source: Data compiled from Davison's Knit Goods Trade, 1938 Edition.

a/ Of a total of 823 knitted outerwear establishments listed, 749 or 91.0 percent reported number of knitting machines

Approximately seven-tenths of the firms which were confined to knitted outerwear production owned only 29 percent of the total knitting equipment reported by such firms; and about seven-tenths of the plants producing other knit goods as well as outerwear, possessed not quite 25 percent of the knitting machines reported by all establishments of this type. Conversely, the larger mills, representing approximately 30 percent of establishments manufacturing only knitted outerwear and 30 percent of those producing outerwear in conjunction with other knit goods, owned 61 and 75 percent respectively of the total number of knitting machines reported by each group. 1/ In other words, the extreme differences in size of plant as measured by knitting machines in place reflect the concentration of a great proportion of total equipment in the hands of comparatively few firms.

A third measure of size of establishment is value of products, as shown in Table 14. In 1937, the value of production per firm ranged from less than $5,000 to over $2,500,000. As reported by the Census, the products of nearly 23 percent of the mills were valued at less than $20,000; 2/ and for nearly half of the establishments (47 percent) at less than $50,000. The output of only 7 percent of the plants was valued at $500,000 or above.

1/ For complete percentage distribution, see Appendix Table A .
2/ The Census does not report firms with products valued at less than $5,000.

Table 14. -- Knitted Outerwear Industry: Classification of Establishments by Value of Product, 1937. [a]

Products Valued at	Number	Establishments Percent Simple	Establishments Percent Cumulative
\$ 5,000[b] to \$ 19,999	153	22.9	22.9
20,000 to 49,999	163	24.4	47.3
50,000 to 99,999	109	16.3	63.6
100,000 to 249,999	128	19.1	82.7
250,000 to 499,999	66	9.9	92.6
500,000 to 999,999	33	4.9	97.5
1,000,000 to 2,499,999	15	2.2	99.7
2,500,000 and over	2	0.3	100.0
Total	669	100.0	100.0

Source: Census of Manufactures, 1937, Establishments, Classified According to Value of Products, 1937, published August 30, 1939.

[a] Excluding gloves and mittens establishments.

[b] Firms with less than \$5,000 not tabulated by the Census.

c. Location of firms

Since its inception, the knitted outerwear industry has been located primarily in the New York City metropolitan area. Philadelphia has also been an important production center for many years. Other centers include Los Angeles, San Francisco, Cleveland, Newark, Boston, Chicago, and Milwaukee, as well as a few smaller cities. The primary localization in a few metropolitan areas is probably the result of the dependence of the industry upon style factors which are dictated mainly in New York and Los Angeles.

Table 15 discloses the distribution of mills, by states, between 1929 and 1938, as reported by Davison's.

Table 15. — Knitted Outerwear Industry: Distribution of Mills by States a/

State and Region	1929	1931	1933	1935	1937	1938
United States, total . .	924	857	846	923	880	856
New England	69	61	58	71	72	66
Maine	2	2	2	2	1	1
New Hampshire	3	2	3	3	2	1
Vermont				1	1	1
Massachusetts	54	47	44	53	50	50
Rhode Island	5	5	4	5	10	6
Connecticut	5	5	5	7	8	7
Middle Atlantic	660	600	610	667	618	605
New York	455	425	436	470	404	402
New Jersey	67	53	57	72	90	77
Pennsylvania	138	122	117	125	124	126
East North Central	94	89	80	76	73	69
Ohio	20	19	25	22	20	18
Indiana	2	1	1	1	1	1
Illinois	30	30	22	22	20	21
Michigan	10	11	7	7	8	6
Wisconsin	32	28	25	24	24	23
West North Central	17	15	17	14	16	13
Minnesota	11	10	10	8	11	8
Iowa	1	1	2	2	2	2
Missouri	4	3	4	3	2	2
Kansas	1	1	1	1	1	1
South Atlantic	10	13	12	12	16	18
Delaware					1	
Maryland	2	1	2	1	1	1
Virginia		2	2	3	4	4
North Carolina	4	4	3	4	5	7
South Carolina	2	2	2	2	2	2
Georgia	2	4	3	2	3	4
East South Central	4	4	5	6	6	8
Kentucky	1		1	1	1	1
Tennessee	1		1	1	1	3
Alabama	2	4	3	4	4	3
Mississippi						1
West South Central	2	2	1	2	2	2
Texas	2	2	1	2	2	2
Mountain	4	5	4	5	7	7
Wyoming	1	1	1	1	1	1
Colorado				1	1	1
Utah	3	4	3	3	5	5
Pacific	64	68	59	70	70	68
Washington	11	10	10	10	8	8
Oregon	6	5	4	4	5	4
California	47	53	45	56	57	56

Source: Davison's Knit Goods Trade, Summary Tables-- 1929, 1931, 1933, 1935, 1937, and 1938 Editions.

a/ Data include a relatively small number of firms producing miscellaneous knitgoods rather than outerwear. A careful check for 1938 indicates that there were 29 plants that could be so classified. In addition, four mills were operated by state penitentiaries rather than by private manufacturers. The number for earlier years is not available.

It may be observed that although the total number of establishments varies considerably as between these years, there has been no essential change in location, no migration from one part of the country to another. This geographic stability is made more readily apparent in Table 16, which reveals the percent of total establishments in each geographic region from 1929 to 1938.

Table 16. -- Knitted Outerwear Industry: Percent Distribution of Mills by Regions [a]

Region	1929	1931	1933	1935	1937	1938
United States	100.0	100.0	100.0	100.0	100.0	100.0
New England	7.5	7.1	6.9	7.7	8.2	7.7
Middle Atlantic	71.4	70.0	72.1	72.3	70.2	70.7
East North Central	10.2	10.4	9.5	8.2	8.3	8.1
West North Central	1.8	1.8	2.0	1.5	1.8	1.5
South Atlantic	1.1	1.5	1.4	1.3	1.8	2.1
East South Central	0.4	0.5	0.6	0.7	0.7	0.9
West South Central	0.2	0.2	0.1	0.2	0.2	0.2
Mountain	0.4	0.6	0.5	0.5	0.8	0.8
Pacific	6.9	7.9	7.0	7.6	8.0	7.9

Source: Computed from data from Davison's Knit Goods Trade Summary Tables - 1929, 1931, 1933, 1935, 1937, and 1938 editions.

[a] Data includes a relatively small number of firms producing miscellaneous knit goods rather than outerwear. A careful check for 1938 indicates that there were 29 plants that could be so classified. In addition, 4 mills were operated by state penitentiaries. The number for earlier years is not available.

Thus the proportion of establishments in the middle Atlantic region ranged consistently between 70.0 and 72.3 percent during these years; the proportion in the East North Central region varied only between 8.1 and 10.4 percent; in the New England region, between 6.9 to 8.2 percent; and in the Pacific region, between 6.9 to 8.0 percent. Other regions showed even smaller fluctuations.

However, a distribution of the number of establishments by states or geographic regions does not give a complete picture as to the relative predominance of an industry in any given location, because of sectional differences in size of plants and the amount of product. Table 17, compiled from Census of Manufactures data for 1937, permits a more satisfactory understanding of location, revealing not only the proportion of total establishments by states and geographic regions, but also the proportion of total wage earners and value of product.

Thus, although New York State accounts for nearly 53 percent of the establishments, the proportions of total wage-earners and value of product are smaller, amounting to 30 and 38 percent respectively. A similar relationship applies in New Jersey. Pennsylvania, on the other hand, accounts for only 13 percent of the establishments, but for approximately 19 percent of both wage-earners and value of product. Massachusetts also is under-represented on the establishment basis, accounting for less than 5 percent, as compared to nearly 9 percent of wage-earners and nearly 10 percent of total product value. This is true to a somewhat lesser extent in Ohio and Wisconsin. In the other states, these three categories are roughly equal in importance.

Nevertheless, although the relative importance of number of establishments, number of wage earners, and value of product differ within the major producing sections, the industry is none the less concentrated in comparatively few states. Furthermore, these centers of production have not changed significantly, at least during the past decade. In fact, in 1937, eight states accounted for nearly 90 percent of the total value of product, these being New York, Pennsylvania, Massachusetts, California, Ohio, New Jersey, Wisconsin, and Illinois. In 1929, these same eight states accounted for nearly 92 percent of total product value.

Table 17-- Knitted Outerwear Industry: Number of Establishments, Wage Earners, and Value of Product, by Regions and States, 1937

Region and State	Establishments		Wage Earners		Product	
	Number	Percent of Total	Number	Percent of Total	Value	Percent of Total
U. S. Total	669	100.0	26,139	100.0	$106,836,039	100.0
New England	43 [a]	6.4	2,717 [e]	10.4	11,128,615 [e]	10.5
Connecticut	6	0.9	400	1.5	1,035,203	1.0
Massachusetts	30	4.5	2,317	8.9	10,193,412	9.5
Maine [d]	1	0.15				
Vermont [d]	1	0.15				
Rhode Island [d]	1	0.15				
New Hampshire [d]	1	0.15				
Middle Atlantic	493	73.8	14,450 [e]	55.1	65,952,892 [e]	61.8
New Jersey	53	7.9	1,571	6.0	4,833,050 [c]	4.5
New York	353	52.9	7,970	30.4	40,546,191 [c]	38.0
Pennsylvania	87	13.0	4,909	18.7	20,573,651 [c]	19.3
South Atlantic	2	0.3				
North Carolina [d]	2	0.3				
East North Central	52	7.7	4,195 [e]	16.1	12,620,465 [e]	11.8
Illinois	14	2.1	474	1.8	1,767,617	1.7
Michigan	4	0.6	118	0.5	480,414	0.4
Ohio	15	2.2	2,214	8.5	6,085,517	5.7
Wisconsin	19	2.8	1,389	5.3	4,286,917	4.0
East South Central.	3	0.45				
Tennessee [d]	1	0.15				
Alabama [d]	2	0.3				
West North Central	9	1.35	492 [e]	1.9	1,401,169 [c]	1.3
Minnesota	8	1.2	492	1.9	1,401,169	1.3
Missouri [d]	1	0.15				
Mountain	7	1,05	384 [e]	1.5	1,195,979 [e]	1.1
Utah	6	0.9	384	1.5	1,195,979	1.1
Colorado [d]	1	0.15				
Pacific	60 [b]	9.0	1,796 [e]	6.9	7,577,718 [c]	7.1
California	47	7.0	1,662	6.4	7,117,820	6.7
Washington	6	0.9	134	0.5	459,898	0.4
Oregon [d]	4	0.6				
All Other [b] [f]	-	-	2,105	8.1	6,859,201	6.4

Source: Census of Manufactures, 1937.

[a] Includes 2 contract establishments in Connecticut and 1 in Massachusetts for which individual data were withheld.

[b] Includes 3 contract establishments in California for which individual data were withheld.

[c] Regular and contract factories combined, since "value of product" of both types of plant includes "receipts for contract work," there is considerable duplication.

[d] State totals withheld to avoid disclosing data for individual establishments. Wage earners and value of product for these 21 establishments are totaled in "all other".

[e] Includes only totals for those establishments within the region, for which state totals were available. Those for which data were withheld are included in "all other".

[f] 21 establishments for which individual data were withheld.

Since knitted outerwear products, particularly sweaters, are worn by men, women, children, and infants of all income groups throughout the country, it is interesting to compare the proportion of total product value in these 8 major manufacturing states with their respective populations, as shown in Table 18. The product data apply to 1929, the year most comparable with the last Census of Population, taken in 1930.

Table 18. -- Knitted Outerwear Industry: Percentage Distribution of Value of Products, 1929, and of Population, 1930, in Principal Producing States

	Value of Product, 1929		Population, 1930	
	Amount	Percent of Total	Amount	Percent of Total
	(in thousand dollars)		(in thousands)	
Total, United States	$147,249.3	100.0	122,775.0	100.0
New York	68,148.5	46.3	12,588.1	10.2
Pennsylvania	21,135.4	14.3	9,631.4	7.8
Ohio	12,159.1	8.2	6,646.7	5.4
Wisconsin	9,638.9	6.5	2,939.0	2.4
Massachusetts	9,122.7	6.2	4,249.6	3.5
California	6,778.2	4.6	5,677.2	4.6
New Jersey	4,837.4	3.3	4,041.3	3.3
Illinois	3,254.4	2.2	7,630.6	6.2
Total (8 states)	$282,323.9	91.6	176,178.9	43.4

Source: Census of Population, 1930, Census of Manufactures, 1929.

As may be seen, these 8 states which accounted for over nine-tenths of total knitted outerwear production, represented hardly more than 43 percent of the nation's population. In other words, some 57 percent of the population reside in states which produce either a negligible amount of knitted outerwear or none at all. The requirements of these people were supplied by producers located in other states. The interstate character of the industry is therefore readily apparent.

d. Raw materials

(1) Trends in utilization

The industry utilizes a wide variety of yarns. These are primarily of wool but include cotton, rayon, and silk as well as mixtures. Varying amounts of camel's hair, rabbit's hair and other animal fibres are also used. These yarns differ greatly, not only as to fiber and mixtures of fiber, but as to grades, size, spinning system, twist and other factors.

Novel effects in yarns have contributed considerably to the styling of garments, which has been important in the development of consumer demand.

The most conclusive data relating to the proportionate utilization of raw materials by this industry were compiled by the Census in 1929 (shown in Appendix Table B). Unfortunately no more recent tabulation is available. In that year, the industry purchased over 68,500,000 pounds of fiber, 78 percent as yarn and the remaining 22 percent in the raw state or as waste, noils, or recovered fiber. A summary of these data together with estimates for 1932 and 1938 are contained in Table 19.

From the above information, it is evident that wool, worsted, and similar yarns are by far the most widely used. It appears that the proportion of wool increased between 1929 and 1932, but has not changed materially since then. No separate estimates were made of the proportions of cotton and rayon utilized at present, but together these appear to account for about the same percentage in 1938 as in 1932. Silk and other fibers are apparently of little importance to the industry as a whole,

Table 19 -- Knitted Outerwear Industry: Trends in Utilization of Raw Materials, 1929, 1932, and 1939

Raw Materials	1929		1932 (Estimated)	1939 (Estimated)
	Pounds (In Thousands)	Percent of Total		
TOTAL	68,558	100 %	100 %	100 %
Woolen and worsted a/	40,481	59	76	75
Cotton	24,927	36	12	25
Rayon	2,422	4	11	
Silk and other	728	1	1	b/

Source: 1929: data from Census of Manufactures.

1932: N.R.A. Work Materials No. 80, p. 223. Obtained from estimate of the National Knitted Outerwear Association.

1939: Estimate from National Knitted Outerwear Association, July 19, 1939.

a/ Includes a small percentage of wool and cotton, and worsted and cotton mixtures which in 1929 amounted to 2.4 percent and 0.8 percent respectively of the quantity of total raw materials purchased.

b/ Negligible.

although they figure more prominently in the production of knitted neckties and certain novelty goods.

Very few producers of knitted outerwear spin their own yarns. Davison's reports spindles for only 17 of such mills in 1938, all but two of which also produce other knit goods. 1/ According to the National Knitted Outerwear Association, those mills which do spin their own yarn are located principally in the Mohawk Valley, New York, and work with wool fiber only. 2/ It is apparent therefore that the proportion of fibers purchased in the raw state is negligible at the present time, and that nearly all yarns are purchased. In consequence, it is the fluctuations in yarn prices which have the greatest bearing on economic conditions in the bulk of the industry.

(2) Prices of raw materials

Raw materials constitute the major cost factor involved in the manufacture of knitted outerwear. Returns from a cost questionnaire sent by the Economic Section to members of the industry revealed that for the entire year 1938, total materials costs represented over 57 percent of total operating costs. 3/

1/ Compiled from Davison's Knit Goods Trade, 1938 edition.
2/ National Knitted Outerwear Association, Interview with Mr. Sidney Korzenik, July 19, 1939.
3/ Operating costs include labor, materials, and other manufacturing costs, overhead, selling and financial costs. It represents the total value of net sales with the exception of salaries and returns to executives and owners, and profits. Details regarding this cost questionnaire are continued in Appendix A, Part II of this report. A breakdown of the materials cost ratios to total operating costs by size of firm (as measured by net sales) is contained therein. In general, it appeared that both small and large firms had somewhat lower ratios of raw materials to total operating costs than did firms of medium size.

Average prices of yarns since 1929 have shown a general but fluctuating trend downward, as disclosed in Table 20. However, the indexes, based on 1929, reveal that price reductions for wool and cotton were less pronounced than for silk and rayon. The wool index, which is particularly significant to this industry, fell to a low point of 56 in 1932; rose unsteadily to nearly 93 in 1937; dropped sharply to 71 in 1938; and since has risen slightly to an average of 75 for the first six months in 1939. In the case of wool, cotton, and rayon yarns, 1937 prices were substantially higher than 1938 and 1939. Only silk yarn has undergone a drastic rise currently, but the increase could not seriously affect the industry due to the negligible proportion used.

More detailed price data for 2/20's worsted yarns, a type commonly utilized, are contained in Appendix Table C , which presents monthly as well as yearly price averages and indexes for selected years, 1929 through 1939. The yearly averages for this yarn closely follow those for the wool yarn type shown in Table 20.

Table 20. — Knitted Outerwear Industry: Average Yearly Prices of Wool, Cotton, Silk, and Rayon Yarns, 1929-1938, and Six Months Average, January-June, 1939

Year	Wool [a]	Cotton [b]	Silk [c]	Rayon [d]
	Prices per pound (in dollars)			
1929	$1.49	$ .54	$4.93	$1.24
1930	1.24	.47	3.42	1.05
1931	1.00	.37	2.40	.75
1932	.84	.31	1.56	.64
1933	1.08	.41	1.61	.61
1934	1.25	.46	1.30	.59
1935	1.13	.45	1.63	.57
1936	1.31	.42	1.77	.59
1937	1.38	.44	1.86	.62
1938	1.06	.38	1.71	.52
1939 [e]	1.12	.35	2.31	.51
	Index (1929 = 100)			
1929	100.0	100.0	100.0	100.0
1930	83.2	87.0	69.4	84.7
1931	67.1	68.5	48.7	60.5
1932	56.4	57.4	31.6	51.6
1933	72.5	75.9	32.7	49.2
1934	83.9	85.2	26.4	47.6
1935	75.8	83.3	33.1	46.0
1936	87.9	77.8	35.9	47.6
1937	92.6	81.5	37.7	50.0
1938	71.1	70.4	34.7	41.9
1939	75.0	65.1	46.8	41.1

Source: Cotton prices compiled from the *Journal of Commerce*. Others from the U.S. Bureau of Labor Statistics, Wholesale Price Division. Index numbers computed.

[a] Worsted yarn, 32's, white, cross-bred stock, factory.

[b] Average mid-month contract prices of 40's, single-combed peeler yarn, New York.

[c] Japanese silk, 78 percent, crack, XX, 13/15 denier, white, New York.

[d] A-grade, 150 denier, continuous filament, first quality, New York.

[e] Six months' average, January through June 1939.

(3) Sources of raw materials

The bulk of raw materials used by the industry are of domestic origin, produced to a considerable extent in the same states where manufacture of knitted outerwear is concentrated. The principal states producing wool, cotton, and rayon and silk yarns are presented in Table 21. The table reveals the percent of total spindlage, by states, for 1935. 1/ It may be seen that nearly 90 percent of total wool and worsted spindlage was located in only 9 states, and over 61 percent of the total was concentrated in Rhode Island, Massachusetts, and Pennsylvania while nearly 60 percent was located in five states important in the production of knitted outerwear, namely, New York, New Jersey, Pennsylvania, Connecticut and Massachusetts.

Nearly nine-tenths of cotton yarn spindlage was also concentrated in nine states, the four most important being Massachusetts, North Carolina, South Carolina, and Georgia. In this instance, less than 21 percent was located in the five major states producing knitted outerwear, although an additional 15 percent was reported in nearby New England States. In the case of rayon and silk spindlage, over 90 percent was located in only 7 states, and Pennsylvania alone accounted for more than 64 percent of the total. Close to 89 percent of such spindlage was concentrated in the five knitted outerwear states listed.

In other words, the bulk of knitted outerwear is produced in the same general area where the greatest part of the yarns is spun. The location of cotton yarn-spinning is the only exception and in this instance, states in the vicinity of knitted outerwear production appear to be easily capable of supplying the industry's moderate needs.

1/ More recent data either as to spindlage or value, by states, are not available.

Table 21. -- Knitted Outerwear Industry: Location of Raw Materials: Percent of Total United States Yarn Spindlage, by States, 1935.

States	Yarn and Thread Spindlage		
	Wool and Worsted	Cotton	Rayon and Silk
Maine	6.4	3.1	-
New Hampshire	5.5	3.6	b/
Rhode Island	17.1	5.8	1.5
Connecticut a/	4.3	2.2	1.1
Massachusetts a/	32.4	18.5	3.1
New York a/	5.5	b/	9.5
New Jersey a/	5.8	b/	8.6
Pennsylvania a/	11.8	b/	64.3
North Carolina	b/	21.5	2.4
South Carolina	b/	17.9	b/
Georgia	1.0	11.7	b/
Alabama	-	5.5	-
Total (States listed)	89.8	89.8	90.5
All Other States	10.2	10.2	9.5
U. S. Total	100.0	100.0	100.0

Source: U. S. Department of Commerce, Basic Industrial Markets, Market Series 14.1, 1936, Tables 2, 4, and 6.

a/ According to the Census of Manufactures, 1937, these 5 states accounted for 72.3 percent of total value of knitted outerwear production, as follows: New York (38.0%); Pennsylvania (19.3%); Massachusetts (9.5%); New Jersey (4.5%); and Connecticut (1.0%).

b/ Less than 1 percent. Included with "All Other States".

However, western and middle-western producers, which in 1937 accounted for approximately one-fifth of the establishments and of the value of knitted outerwear product, were farther removed from the source of yarn supplies.

(4) Imports and tariffs

Imports of yarns are of little importance in relation to domestic production, of knitted outerwear. In the case of woolen and worsted yarns, imports amount to less than 1.0 percent of domestic production of such yarns made for sale. 1/ These consist mainly of specialty yarns made from fibers not produced in the United States, such as camel's hair, alpaca and vicuna. 2/ As is shown in Table 22, the amount of woolen and worsted yarns imported rose almost steadily between 1929 and 1936 from not quite 154 to nearly 539 thousand pounds, although a decrease occurred subsequently. However, the value of such imports has consistently been below the 1929 level.

1/ U. S. Tariff Commission Trade Agreement Between the United States and the United Kingdom, 1938, schedule II, pp. 17 and 18.
2/ Ibid., p. 21

Table 22. -- Wool Yarn: United States Imports
for Consumption in Specified Years

Year	Quantity		Value	
	Pounds	Index (1929 = 100)	Amount	Index (1929 = 100)
1929	247,010	100.0	$747,920	100.0
1931	153,903	62.3	385,454	51.5
1932	196,983	79.7	282,082	37.7
1933	344,304	139.4	408,589	54.8
1934	293,654	118.9	398,894	52.1
1935	440,571	178.4	584,466	78.1
1936	538,715	218.1	612,543	81.9
1937	342,159	138.5	413,962	55.3

Source: U. S. Tariff Commission Trade Agreement Between the United States and the United Kingdom, Digest of Trade Data, V. 7. schedule 11.

The United Kingdom is the principal source of wool and mohair yarns, Germany ranks second, and France third. These three countries together supply about 95 percent of total imports. [1] Since 1930 and until recently, all types of wool yarn imported into the United States have been subject to a duty of 40¢ per pound plus an ad valorem rate [2] ranging from 35 to 50 percent depending on the value of the yarn. [3] A trade agreement with France, effective June 1936, lowered the rate on yarns of angora rabbit hair to 40¢ per pound and 25 percent ad valorem. Under the United Kingdom agreement effective January 1, 1939, rates on all other types of wool yarns were decreased to 30 percent ad valorem and from 30 to 40¢ per pound, depending upon the value. [4]

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[1] U. S. Tariff Commission Trade Agreement Between the United States and the United Kingdom, 1938, schedule II, pp. 17 and 18.

[2] The ad valorem rate is the duty expressed as a percentage of the foreign valuation of the commodity imported, unless otherwise specified.

[3] United States Tariff Commission, Changes in Import Duties Since the Passage of the Tariff Act of 1930, January 1, 1939, p. 102.

[4] Ibid.

The United States has long been on an export basis for cotton yarns, and since 1927 exports have been several times greater than imports. The imports of cotton yarns consist principally of fine-count yarns and specialties not produced in large quantities in the United States, [1] and amount to less than one percent of domestic production. [2] Between 1930 and 1939 tariffs on cotton yarn ranged from 23 percent to 32 percent ad valorem, depending on the yarn number. Bleached, dyed, colored, combed, or plied yarns had duties ranging from 28 percent to 37 percent ad valorem. These rates were lowered somewhat as of January 1, 1939 in accordance with a trade agreement with Great Britain, and now range from 23 to 25 percent and from 28 to 30 percent respectively. [3]

Silk is of little importance to the knitted outerwear industry. Such silk as is used is nearly all imported in the raw state. In 1937, about 93 percent was imported from Japan, the remaining 7 percent being obtained from China and Italy. [4] Provisions of the 1930 Tariff Act, which are still in effect, leave raw silk duty free. However, the silk manufacturing industry is protected by a rate of 20 percent ad valorem on untreated spun silk, and a rate of 40 percent ad valorem when bleached, combed, or otherwise processed. [5]

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[1] United States Bureau of Labor Statistics, Wages in Cotton-Goods Manufacturing, by A. F. Hinrichs (Bulletin No. 663), November 1938, p. 56.

[2] United States Tariff Commission, Trade Agreement Between the United States and the United Kingdom, 1938, schedule 9, p. 4.

[3] United States Tariff Commission, Changes in Import Duties Since the Passage of the Tariff Act of 1930, January 1, 1939, pp. 89-90.

[4] Bureau of Foreign and Domestic Commerce, Foreign Commerce and Navigation of the United States, 1937, Table I, pp. 148-153.

[5] Tariff Act of 1930. No subsequent change.

Rayon yarns, single, are subject to a rate of duty of 45 or 50 percent ad valorem depending upon whether they are above or below 150 denier. In any case such yarns are subject to a specific minimum duty of 45 cents per pound. 1/ This tariff is of a purely protective character.

(5) Transportation factors

The transportation of raw materials to knitted outerwear mills is treated in a separate section.

e. Technology

Until comparatively recent years, the production of knitted outerwear was performed by handicraft methods. The great development of this industry during the past three decades has been made possible by numerous improvements in machine technology.

In an industry which is dependent upon the vagaries of fashion, technological change plays a dual role. Not only has it involved frequent improvements in the productive capacity of machines, but also improvements in style versatility, permitting increased variety in stitch and design. The result has been a series of innovations, either in the form of new machines or new attachments for older machines, which have enabled the industry to manufacture the novelty garments that characterize much of present-day production.

(1) Types of machines and equipment

Although hand work in the home still is continued for certain types of garments, chiefly infants' wear, the major part of production has become highly mechanized. Numerous types of knitting equipment are

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1/ Tariff Act of 1930. No subsequent change.

utilized such as rib, warp, crochet, and chain loom machines. However, most knitting equipment may be classified as either flat or circular, operated mainly by power, although hand driven machines are still in use.

Furthermore, the industry requires many types of supplementary machines, including winders, brushers, calendars, cutters, presses, and several kinds of sewing and seaming machines, some of which are very specialized. In general, garments are produced by two methods. Certain articles, such as bathing suits, and heavy or novelty sweaters are customarily made on flat or circular knitting machines, which design the garment sections during the knitting process. Other articles, such as light sweaters and suits and dresses, are commonly made of tubular or flat-knit cloth, then marked, cut, and sewn to form the garment. Both methods of manufacture require a high proportion of skilled and semi-skilled labor.

Knitting machines of both flat and circular classifications are of several types. The plain type knits in only one color. The pattern wheel knits a limited number of additional colors in stripes. The Jacquard machines are capable of even greater versatility both in color and design. 1/ Further, there are link-and-link machines, also known as purl stitch machines, now available in circular as well as flat type, which produce goods very closely resembling those knit by hand. These latter are used extensively for infants' wear as well as for novelty sweaters and other knitted apparel. In general, however,

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1/ N.R.A. Work Materials, No. 80, Part D, The Knitted Outerwear Industry, p. 227.

it is difficult to allocate particular machines to the production of particular types of garments, since manufacturers frequently utilize similar or identical equipment for more than one type of product. 1/

No machine studies for this industry have been made since those of the Bureau of Foreign and Domestic Commerce for the cities of Philadelphia, Cleveland, and New York during the years 1928, 1929, and 1930 respectively. 2/ At the time of the New York survey, it was indicated that circular machines produced at between 40 and 50 percent less cost than the flat variety. 3/ Until about 1930, the industry imported most of its flat knitting equipment from Germany and Switzerland, and such machines have been produced extensively in this country only within the last decade. 4/

Although the depression is understood to have retarded the rate of technological improvements in knitting equipment due to a greatly reduced demand for new machinery, two important and very recent developments have taken place: the introduction of link-and-link machines of the double-lock type with 120-inch bed, which doubles or more than doubles the production of earlier models; and the development of a highly versatile circular link-and-link machine which may

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1/ U. S. Department of Commerce, Knitted Outerwear Machinery in New York City, Domestic Commerce Series No. 58, 1932 U. S. Government Printing Office, p. 9.

2/ Knitted Outerwear Machinery in Philadelphia, Domestic Commerce Series No. 35, 1930. Knitted Outerwear Machinery in Cleveland, Domestic Commerce Series No. 47, 1931. Knitted Outerwear Machinery in New York, Domestic Commerce Series No. 58, 1932.

3/ Ibid., p. 15.

4/ National Knitted Outerwear Association, Memorandum to the Committee for Reciprocity Information Relative to Trade Agreement Negotiations with the Government of the United Kingdom, etc., February 18, 1938, p. 11.

greatly offset the advantages previously attributed to the flat type. Moreover, a Philadelphia transfer machine, introduced in about 1935, is expected to eliminate the need for most hand knitting machines. 1/ These improvements may somewhat reduce employment of knitters, although such reductions may well be accompanied by increased employment in the finishing divisions of a plant.

Despite recent and earlier technological improvements, a considerable quantity of old and even obsolete equipment remains in operation. The variety of products manufactured, their changing style characteristics, together with differences in type of firm render generalizations difficult. Equipment that is obsolete in a mill producing one type of garment may at least temporarily prove efficient in a firm producing a different garment. Such variations in requirements, together with depression problems, help to account for the prevalent purchase of second-hand equipment and of modernizing attachments rather than of new equipment. Thus, of the 5,813 knitting machines covered by the 1928, 1929, and 1930 Department of Commerce surveys, 59 percent were purchased new, 28 percent second-hand and for 13 percent the condition of purchase was unknown. 2/ It was stated, however, that practically all machines classed as unknown were probably bought second-hand. 3/ On this assumption, approximately

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1/ Mr. William Schaffer, Knitgoods Workers' Union, Interview of July 20, 1939.

2/ Knitted Outerwear Machinery in New York, op. cit., computed from table on Comparison of New and Second-hand Machines in New York, Philadelphia, and Cleveland, p. 5.

3/ Knitted Outerwear Machinery in Philadelphia, op. cit., p. 8.

two-fifths of the machinery purchased in the three major producing areas, New York, Philadelphia, and Cleveland, were second-hand. Apparently this tendency has increased during the past five years. One knitting machine company estimated that approximately 90 percent of present demand is for second-hand machinery. 1/

It is evident, therefore, that the capital investment necessary for the purchase of knitting equipment varies greatly for different types and as between new and second-hand machines. Circular machines, purchased new, range in price from $600 to $3,000 each, and second-hand prices range between 30 and 60 percent of the new machine price. 2/ Taking into consideration hand as well as power-driven machines, prices are reported to range from $200 to $3,200 new, and from $25 to $1,500 second-hand. 3/

No estimate can be made as to capital investment in equipment because of the enormous variation in value of knitting machines of different kinds, as well as that of supplementary equipment such as winding, seaming, and sewing machines; button sewing machines, steaming and pressing, looping, and cutting machines.

(2) Buildings

The capital investment required for buildings would also vary considerably, depending upon the size and location of the firm. On the whole, it appears that such requirements are ordinarily small.

1/ Queens Machine Corp. Letter of July 14, 1939.

2/ Knitting Machine Manufacturers' Association, Letter of August 1, 1939.

3/ Memorandum from Mr. Sidney Worms, Franklin Knitting Mills, Inc. August 1, 1939.

In the New York metropolitan area and in other urban centers, most plant space is rented. It has been estimated that the average mill requires only from 2,500 to 3,500 square feet of floor space, with rent ranging from $900 to $1,500 annually in New York City and considerably less in smaller centers. [1] Only in the case of mills established in relatively small communities would ownership of land and buildings be prevalent. [2] Furthermore, the very considerable proportion of small mills in this industry indicates **that** building space is not a major cost factor as compared with many other industries.

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[1] National Knitted Outerwear Association, Interview with Mr. Sidney Korzenik, July 19, 1939.

[2] National Knitted Outerwear Association, Also Mr. Sidney Worms, _op. cit._

f. Labor

(1) Skill

The labor force of the knitted outerwear industry is composed primarily of skilled workers, as might be expected in an industry which produces such varied articles involving delicate machinery and intricate processes. In a survey of earnings and hours in the industry, made by the U. S. Bureau of Labor Statistics in August and September, 1938, nearly two-thirds of the employees (62.9 percent) were classified as skilled; 32.3 percent were classified as semi-skilled; and only 4.8 percent were classified as unskilled 1/. A total of 14 skilled occupations were specifically listed, in addition to miscellaneous skilled occupations in the knitting and other departments. Eleven semi-skilled occupations were classified separately in addition to miscellaneous semi-skilled, while unskilled occupations included only learners and apprentices and miscellaneous direct and indirect unskilled labor.

In terms of employment, the most important skilled occupations included knitters, cutters, garment pressers, hemmers, seamers, and loopers. The semi-skilled occupational groups included hand sewers; folders, wrappers, and boxers; hand trimmers; steamers and pressers; and edgers. Unskilled occupations included work distributors and dye-house labor among those engaged directly on production, and such occupations as janitors, waste balers and errand boys among the indirect laborers.

1/ U. S. Bureau of Labor Statistics, Division of Wage and Hour Statistics, Earnings and Hours in the Knitted Underwear, Outerwear, Cloth and Gloves and Mittens Industries, August and September, 1938, (mimeographed) October, 1939.

(2) Sex

Sewing machine operations of various kinds, including seaming, button and button-hole operations, edging and the like, involve a considerable proportion of total employment. Primarily for that reason, the greater part of the labor force is composed of women. The sample studied in the survey of the U. S. Bureau of Labor Statistics revealed that three-fourths of the employees were women, and approximately this same ratio applied to occupations at each level of skill. 1/

(3) Employment trends

Employment trends in the knitted outerwear industry are greatly affected by shifts in fashion as well as by general business conditions. In 1927, a year of general prosperity for most industries, employment in this industry amounted to only 60 percent of the 1923 peak figure and in 1929 employment had recovered to only 70 percent of the 1923 level. Although some further recession occurred after 1929, the numbers employed in 1931 and 1933 were greater than in 1929. The combination of a fashion trend and improved business conditions brought the employment level in 1935 above that of any year subsequent to the 1923 peak. Since 1935, employment has declined again. In the year 1937 the level was still slightly above that of 1929, but in 1938 and 1939 the employment level appears to have settled at a figure slightly below

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1/ U. S. Bureau of Labor Statistics, special tabulation furnished to the Economic Section. The Bureau found the proportion of unskilled workers too small to justify separate analysis except for occupational averages on earnings and hours. Unskilled workers were therefore combined with semi-skilled for all other tabulations in this survey.

the year 1927. Table 23 shows the average numbers of workers for census years since 1923 and the numbers estimated from indexes of the U. S. Bureau of Labor Statistics for recent intervening years. [1]

Table 23 -- Knitted Outerwear Industry: Trends in Employment in Selected Years, 1923 - 1938, and January to June, 1939 [a]

Year	Number of Wage-Earners
1923	41,503
1925	27,986
1927	24,662
1929	28,968
1931	26,142
1933	26,908
1935	35,455
1936	32,821
1937	29,321
1938	23,046
January - June 1939 [b] (six month average)	23,113

Source: 1936, 1938, and 1939: U. S. Bureau of Labor Statistics, Division of Employment and Payrolls, Revised Indexes of Factory Employment and Payrolls, September, 1939. Computed from indexes based on 1923 - 1925 average of 34,200 wage-earners. Data for all other years from Census of Manufactures.

[a] Includes knitted glove and mitten establishments throughout, as separate data are available only for 1937.

[b] Not strictly comparable, since data for the remaining months are not yet available.

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[1] For monthly indexes of employment and pay rolls, January, 1923, through June, 1939, see Appendix Table D.
Notwithstanding the serious limitations of Census Statistics for this industry, particularly the lack of reporting of homeworkers, the figures in Table 23 are fairly indicative of the general trend. U. S. Bureau of Labor Statistics indexes have the same limitations but are comparable with the Census aggregates.

The total payrolls of the industry have fluctuated even more than employment, since payrolls depend upon rates of pay and on weekly hours of work, as well as upon volume of employment. Beginning in 1930, payrolls in this industry fell more drastically than employment, and since 1930 payrolls have never regained their relationship to employment which existed in the years 1923 to 1925. However, payroll gains during the N. R. A. years, 1934 and 1935, were greater than the gains in employment. The payroll index rose by over 54 percent (from 58.0 in 1933 to 89.4 in 1935) as compared with an employment gain of about 32 percent (78.7 to 103.7). Between 1935 and 1938 employment declined by 35 percent while payrolls declined by 43 percent.

(4) Productivity

Estimates on trends in productivity within this industry are subject to so many qualifications as to be rendered valueless. It is difficult to compare the productivity of workers producing dresses or suits with those producing neckties or berets; and still more difficult to make comparisons on the array of knitted garments now being marketed with those of earlier years, since type of garment as well as design, stitch, yarn and other factors differed in the past from the present in varying degrees.

One indicator of productivity commonly used is the value added by manufacture per man-hour worked or per wage-earner employed. Yet these data are also of limited usefulness in this industry because of the diversity in products just described; because in some years value added by manufacture is affected by slack production arising from cyclical rather than technological factors; and because this measure is heavily influenced by changes in average price. For these reasons, no attempt is made to measure trends in productivity. It may merely be mentioned that the development of knitting and other equipment described in a preceding section has occasioned an enormous increase in productivity over early handicraft methods; and that recent innovations have increased productivity in those mills where such machinery has been installed.

Variations in value added per man-hour in the different regions and states where knitted outerwear is produced may be of some interest. These data are available for the year, 1935, and are presented in Table 24. Value added amounted to $1.02 per man-hour in California, the highest increment reported; and was also very high in the other western states. Undoubtedly this factor greatly compensates for any disadvantages which firms located on or near the Pacific Coast may feel due to their remoteness from the main sources of raw materials supply.

Other states reporting relatively high value added per man-hour were New Jersey, Illinois and Wisconsin, and Pennsylvania. The slightly lower average for New York was apparently caused by firms situated outside the New York City industrial area.

The lowest value added per man-hour of 57 cents was reported for the five southern states listed, but the negligible proportion of the industry located in the South causes this figure to be of little significance. Relatively low amounts were also shown for the New England states, an average of 76 cents as compared to the national average of 84 cents per man-hour.

Although these man-hour data are not available for 1937, a similar indicator of productivity variations, by region, is presented

Table 24 -- Knitted Outerwear Industry: Value Added by Manufacture per Wage-Earner Man-Hour, by Districts and States, 1935 [a]

District and State	Sample Covered [b]		Value Added per Wage-Earner Man-Hour
	Establishments (Number)	Wage-Earners (Number)	
United States - Total	346	26,284	$ .84
North - Total	296	22,909	.84
District A - Total	220	13,991	.84
New York	143	8,476	.82
New Jersey	24	914	.96
Pennsylvania	53	4,601	.85
District B - Total	29	2,437	.76
Massachusetts	22	1,905	.77
Vt., R.I., and Conn. [c]	7	532	.72
District C - Total	43	6,188	.86
Mich., Ohio, and Ind. [d]	19	3,389	.84
Ill. and Wisc. [e]	24	2,799	.88
District D - Minnesota	4	293	.86
West - Total	40	2,124	1.00
California	30	1,497	1.02
Utah, Wash., and Oregon [f]	10	627	.95
South - Total (Del., Va., N.C., Ky., and Tenn.) [g]	10	1,251	.57

Source: U. S. Bureau of the Census and U. S. Bureau of Labor Statistics, Man-Hour Statistics for 59 Selected Industries, January, 1938, Table 3, p. 24.

[a] Includes gloves and mittens establishments.

[b] The 1935 Census reports a total of 758 establishments and 35,455 wage-earners, of which the sample represents 45.6 percent and 74.1 percent respectively.

[c] Vermont, 1 establishment; Rhode Island, 1; Connecticut, 5.

[d] Michigan, 4 establishments; Ohio, 14; Indiana, 1.

[e] Illinois, 10 establishments; Wisconsin, 14.

[f] Utah, 4 establishments; Washington, 3; Oregon, 3.

[g] Delaware, 1 establishment; Virginia, 3; North Carolina, 4; Kentucky, 1; Tennessee, 1.

in Table 25 which shows value added by manufacture per wage-earner employed. This table is of further interest in that the material is given for the major city industrial areas for which Census reports are available.

Table 25 -- Knitted Outerwear Industry: Value Added by Manufacture per Wage-Earner Employed, by Industrial Areas, 1937

Industrial Areas a/	Number of Establishments	Number of Wage-Earners (average for the year)	Value Added by Manufacture ($1000)	Value Added per Wage-Earner Employed
U. S. Total	669	26,139	$47,311.1	$1,810
New York City - Newark - Jersey City	360	6,692	15,976.3	2,387
Buffalo	3	83	151.1	1,820
Philadelphia - Camden	68	4,196	7,015.1	1,672
Chicago	14	474	708.3	1,494
Cleveland	11	1,956	2,310.5	1,181
Milwaukee	10	708	1,300.5	1,837
Los Angeles	34	1,140	2,650.1	2,325
San Francisco - Oakland	13	522	1,353.3	2,593
All Other b/	156	10,368	15,845.9	1,528

Source: 1937 Census of Manufactures.

a/ Contract establishments are included in the data for the New York Area but not for the other industrial areas, either because they do not exist or are too few in number to permit publication.

b/ Includes establishments located in non-industrial areas and those which are located in industrial areas other than those listed above, but which are too few in number to permit separate publication by the Census.

These data also reveal the relative superiority of firms on the Pacific Coast, particularly in the San Francisco - Oakland industrial area where the value added per wage-earner averaged $2,593 during 1937 as compared to $1,810 for the national average. Moreover, the high position of the New York industrial area, which includes Newark and Jersey City, is clearly shown. For this section, the average was $2,387 in comparison to the somewhat lower figure for New York State of $2,156. Of some significance is the fact that Cleveland showed an average of only $1,181, the smallest increment of value added per wage-earner employed of any industrial area listed. 1/ It may be recalled that the largest average size of firm, both in terms of employment and value of product, was reported for Ohio, and Cleveland represents the only important producing center in that state. The exceptionally low value added per wage earner in an area where large firms predominate further illustrates the relative advantage of small-scale enterprise in this industry.

(5) Monthly fluctuations

In addition to cyclical variations, monthly fluctuations are also characteristic of this industry both in periods of expansion and recession. The high and low month extremes in recent years are shown in Table 26 for employment, payrolls, and average weekly hours.

In the case of employment, the ratio of low month to high month was smallest in 1937 (66.4 percent), due in part to the unusual decline during the latter half of that year, and greatest in 1935 and 1936, both of which were better than average years during the recent history of the industry. During 1933, 1934, and 1938, employment in

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1/ No separate reports were available for the South, and the few firms located in that region are largely scattered among relatively small centers.

Table 26. -- Knitted Outerwear Industry: Average Employment, Payrolls, and Weekly Hours in Peak and Low Months, 1933 - 1938

Year	Employment			Average Weekly Payrolls ($1000)			Weekly Hours		
	High Month	Low Month	Ratio[a]	High Month	Low Month	Ratio[a]	High Month	Low Month	Ratio[a]
1933	31,977	24,316	76.0	490.7	334.1	68.0	47.3	34.5	72.9
1934	33,311	25,137	75.5	583.7	392.0	67.1	36.5	32.2	88.2
1935	39,604	33,071	83.5	669.5	530.4	79.2	40.2	33.2	82.6
1936	34,474	29,104	84.4	570.1	451.1	79.1	41.1	36.2	88.1
1937	33,277	22,093	66.4	534.3	322.4	60.3	39.2	34.4	87.7
1938	26,608	20,007	75.2	406.9	273.7	67.3	39.2	30.4	77.5

Source: Adapted from Appendix Table D . The U. S. Bureau of Labor Statistics indexes from which this table is computed use an average week for the years 1923-1925 as a base (100.0). During that period, employment averaged 34,200 and payrolls $650,000 per week.

[a] Ratio of low month to high month.

the low month amounted to about three-quarters of that prevailing in the peak month. The differences in average weekly hours as between high and low months during these years were in general less marked than for employment, except in 1933, and in 1935. Aggregate payrolls consistently showed a greater monthly variation than either employment or hours worked because payrolls are curtailed during the slack season by both the reduction in employment and the reduction in the weekly hours of those who remain employed. In other words, average hours maintained a somewhat greater stability than did employment, while monthly payrolls were relatively unstable during these years.

A more detailed impression of monthly fluctuations may be gained from Table 27, which contains monthly indexes of employment, payrolls, and also average weekly hours from 1933 to June 1939. The indexes are based on the year 1929 represented as 100.

The knitted outerwear industry has two seasons of active production: a spring season which usually provides maximum work in about February, and a more important winter season which usually provides maximum work in October. Slack production occurs in June and July and, more seriously, in December and January. The average effect of these seasonal fluctuations upon employment payrolls and average weekly hours in recent years is shown in the last column of Table 27. The industry meets these fluctuations in demand largely by varying the numbers of workers employed, and only in a minor way by varying the weekly hours of those who retain employment.

These seasonal variations are modified in particular years by cyclical trends in the industry. Modification of the typical seasonal pattern occurred during the cyclical slump in the first half of 1933 and during the period from June 1937 through June 1938.

Table 27.- Knitted Outerwear Industry: Indexes of Employment and Payrolls, and Average Weekly Hours, by Months, 1933-1938, and January to June,1939 a/

Month	1933	1934	1935	1936	1937	1938	1939	Average 1933-1938
				Employment Index (1929 = 100)				
Annual Ave.	92.8	104.2	122.3	115.6	106.1	85.3	85.4	104.4
Jan.	91.0	86.7	115.3	115.6	115.3	73.9	77.0	99.6
Feb.	83.8	101.8	119.7	118.2	119.0	79.2	86.0	103.6
Mar.	65.2	107.4	121.3	118.5	117.7	79.5	89.0	101.6
Apr.	72.2	109.8	118.5	116.5	118.5	80.3	85.0	102.6
May	86.3	114.7	119.8	113.4	118.2	81.1	86.1	105.6
June	99.3	103.4	115.3	102.6	104.7	80.9	89.0	101.0
July	105.8	91.7	113.9	109.6	102.4	81.6	-	100.6
Aug.	104.6	93.9	125.1	111.3	101.8	87.7	-	104.1
Sept.	110.3	106.4	135.5	119.5	99.5	94.5	-	111.0
Oct.	110.1	114.9	136.8	116.4	101.9	98.2	-	113.0
Nov.	98.1	111.3	128.7	122.4	92.5	92.2	-	107.5
Dec.	87.3	108.9	117.9	122.5	81.6	93.2	-	101.9
				Payroll Index (1929 = 100)				
Annual Ave.	67.7	87.5	104.3	99.9	94.0	73.5	76.7	87.8
Jan.	65.9	70.4	98.7	97.9	100.5	60.4	68.4	82.3
Feb.	60.8	86.0	104.6	100.1	106.2	70.0	79.6	88.0
Mar.	42.4	87.6	103.3	100.8	105.0	68.7	79.7	84.6
Apr.	45.7	90.9	98.5	98.5	107.5	65.9	74.2	84.5
May	60.0	93.1	98.8	93.7	106.4	68.7	77.8	86.8
June	67.8	84.0	96.6	86.3	93.7	67.6	80.0	82.7
July	70.4	77.6	94.9	90.8	88.0	66.2	-	81.3
Aug.	78.9	81.1	108.6	98.9	92.3	76.1	-	89.3
Sept.	86.2	90.2	120.4	103.7	83.2	83.5	-	94.5
Oct.	88.1	104.8	120.0	110.3	96.0	89.8	-	101.5
Nov.	74.0	93.0	108.2	109.6	78.3	80.0	-	90.5
Dec,	71.3	91.7	99.2	107.8	71.2	85.5	-	87.8
				Average Weekly Hours b/				
Annual Ave.	39.9	34.4	36.3	37.8	37.1	35.6	36.4	36.8
Jan.	44.8	33.1	35.1	36.7	37.3	30.4	35.4	36.2
Feb.	42.9	35.0	34.9	36.9	37.7	34.6	37.2	37.0
Mar.	38.7	34.7	34.4	36.6	38.7	33.6	36.8	36.1
Apr.	37.8	36.4	33.2	37.2	39.2	32.8	35.5	36.1
May	42.6	35.6	33.5	36.2	37.7	34.5	37.0	36.7
June	46.8	32.9	34.9	36.0	37.7	34.4	36.7	37.1
July	47.3	34.4	34.1	36.2	36.0	35.4	-	37.2
Aug.	36.8	34.6	37.4	39.5	37.0	37.1	-	37.1
Sept.	36.1	32.2	39.9	37.8	34.5	38.2	-	36.4
Oct.	36.5	36.5	40.2	41.1	38.6	39.2	-	38.7
Nov.	34.5	33.4	37.5	39.7	34.4	36.6	-	36.0
Dec.	37.3	33.1	36.5	38.9	35.0	38.0	-	36.5

Source: U.S.Bureau of Labor Statistics, Division of Employment and Payrolls. January 1933-June 1938 Employment and Payrolls from Revised Index Numbers of Factory Employment and Payrolls (mimeographed); July 1938-June 1939, and all weekly hours, from unpublished data. Indexes recomputed from original base of 1923-1925 as 100.

a/ Includes knitted gloves and mittens establishments. Since only 15 such establishments were reported by the 1937 Census, the essential accuracy of these data would not be disturbed.

b/ Represents a smaller sample than for employment and payrolls.

(6) Homework

Although the development of machinery brought the bulk of knitted outerwear manufacture into the factory, the homework system of production continues to exist in the industry. A considerable number of outerwear manufacturers employ homeworkers, but production in the home is of little importance as compared with factory production except in the case of infants' wear. As was shown in an earlier section, infants' wear was valued at about $10,000,000, or 9.5 percent of the total value of knitted outerwear production in 1937 as reported by the Census.

According to the National Knitted Outerwear Association, homework is of three general types: the production of wholly hand-knit or crocheted garments; hand-joining and finishing of machine-made parts; and hand embroidery 1/. By far the greatest part of homework applies to the complete knitting or crocheting of garments. Such hand production is performed primarily on infants' wear for children up to six years of age, but wholly hand-knit headwear, women's sportswear, and other garments are also produced. Completely hand-knit garments are generally considered superior to the machine product and ordinarily command a higher price.

Hand-joining of machine-made parts involves knitting, crocheting, or sewing the garment sections together, and is understood to provide greater flexibility than similar machine processes. Hand finishing of machine-made knitwear includes hand trimming and hand sewing of

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1/ Harold L. Lhowe, Homework in the Knitted Outerwear Industry, a memorandum submitted to the Wage and Hour Division, February 1, 1939, p. 3.

buttons and buttonholes.

It has been claimed that articles produced in the home do not compete with factory garments; that whenever machinery is developed which is capable of producing the knitwear previously made by hand, homework on that product has disappeared; and that a prohibition of homework in the industry would not bring about factory production of those articles, but that the market would be supplied by foreign imports 1/. Statistical information relating to these points is lacking.

A report of the N.R.A. Code Authority revealed that 172 firms made use of the homework system in May 1935; 90 distributing work directly to homeworkers, 50 distributing through contractors, and the remaining 32 distributing by both methods 2/. The reports of the **Homework Bureau** and a survey made for the National Recovery Administration by the Children's Bureau of the Department of Labor 3/. together reveal a number of interesting facts.

During the eight weeks, April 1 through May 25, 1935, the period for which records were taken, the Homework Bureau reported 20,300 homeworkers registered as engaged in the production of knitted outerwear. These homeworkers were residing in 31 states, but more than 90 percent of them were concentrated in four states: New York (33.2%), Maine (29.3%), Pennsylvania (14.2%) and New Jersey (13.9%) 4/. Those

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1/ Harold L. Lhowe, Homework in the Knitted Outerwear Industry, a memorandum submitted to the Wage and Hour Division, February 1, 1939, pp. 20-21.

2/ Report No. X of the Homework Bureau, Knitted Outerwear Code Authority, under Order No. 164-36, approved Feb. 4, 1935, p. 72 (mimeographed), Table E.

3/ U. S. Children's Bureau, Industrial Homework under the National Recovery Administration, Publication No. 234, 1936. Field work was begun in June and continued through October, 1934. Investigation was carried on in seven states: New York, Pennsylvania, New Jersey, Maine, Rhode Island, Iowa, and Texas.

4/ N.R.A., Division of Review, Work Materials No. 80, op.cit.,p.300.

employed in the production of women's garments and of headwear were centered in metropolitan areas, but those producing infants' wear were recruited for the most part from small towns and rural districts. A larger proportion of firms producing infants' wear were found to be located in New York City, and home production of infants' wear was shown to be highly interstate in character. No more recent data are available as to the total number of homeworkers in the entire industry. However, information was obtained for the States of Pennsylvania and New York [1].

The Pennsylvania Department of Labor and Industry reported 33 licensed knitted outerwear employers and 2,837 homeworkers in this industry during the 3-month period, December 1, 1938 to March 1, 1939. Of these homeworkers, 1,950 or 69 percent were engaged in the production of infants' wear; 15 percent of sweaters, and the remaining 16 percent were nearly equally divided between production of dresses and of miscellaneous knitted outerwear. It may be noted that over half of the total homeworkers reported were employed by one manufacturer of infants' wear [2].

Examination of the New York Homework Bureau files [3] revealed that 3,364 certificated homeworkers were engaged in the production of knitted outerwear in New York as of July, 1938, and 4,390 as of September 19, 1939, as shown in Table 28.

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[1] Letters received by the Economic Section from the Departments of Labor in Maryland, Rhode Island and Massachusetts indicate but a negligible number of homeworkers engaged in production of knitted outerwear. No data were received from other states from which this information was requested.

[2] Memorandum from the Pennsylvania Department of Labor and Industry to the Chief Economist, Wage and Hour Division, September 6, 1939.

[3] New York State Department of Labor. Survey made by Wage and Hour Division, New York Regional Office, and reported in memorandum of September 21, 1939.

Table 28. -- Knitted Outerwear Industry: Number of Establishments with Permits to Employ Homeworkers, by Type, and Number of Certificated Homeworkers Employed in New York State as of July 1938 and September 1939

Type of Establishment	July 1938		September 1939	
	Number of Establishments	Number of Homeworkers	Number of Establishments	Number of Homeworkers
Total	125	3,364	225	4,390
Regular Manufacturers	67	1,389	128	2,364
Contractors	58	1,975	97	2,026

Source: New York Department of Labor, Homework Bureau Files; Data compiled by Wage and Hour Division, New York Regional Office.

The increase in number of homeworkers is paralleled by an increase in number of employers obtaining homework permits, particularly among regular manufacturers. However, it is not known to what extent this apparently considerable increase in homework production may represent more complete registration under the New York law rather than a real upward trend in the volume of homework employment. 1/

According to the Children's Bureau survey during N.R.A., some of the homeworkers interviewed were elderly women but a much larger number were under 50 years of age, including young people, who made homework almost a full-time job. 2/ About two-thirds of the chief

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1/ The New York State law prohibits homeworkers for specified industries and authorizes an Industrial Commissioner to determine within what industries homework may be continued. The Commissioner is empowered to issue licenses to employers and certificates to employees for homework in such industries, and to prohibit it in all others. (U. S. Dept. of Labor, Division of Labor Standards, Industrial Home-Work Legislation and its Administration, Bulletin No. 26, 1939.)

2/ The U. S. Children's Bureau, *op. cit.*, p. 26.

homeworkers [1] from whom information was obtained at the time of this study reported a working week of 30 hours or more, and two-fifths had worked as long or longer than the 40-hour week provided by the Code.

Statistical information on hourly earnings is not as readily available for homeworkers as for factory employees, since home production is paid for by the piece and hours are not directly controlled as they are in the case of factory employees. Data on hourly earnings are therefore confined to studies based on actual interviews with individual homeworkers, and even these data are subject to some margin of error insofar as the homeworkers themselves may have over-estimated or under-estimated the average time required for particular types of garments. These qualifications should be borne in mind when considering the succeeding data.

The Children's Bureau survey indicated that hourly earnings of homeworkers at the time of N.R.A. were low, and although the Federal and State Minimum Wage Laws may have improved the situation in a considerable number of cases, all available evidence reveals that hourly earnings for homeworkers continue at substantially lower levels than for factory employees.

Of the 296 chief homeworkers whose earnings in 1934 were reported by the Children's Bureau one-third were receiving wages of less than 5 cents per hour; three-fourths of less than 10 cents per hour; and only two workers reported earnings of 20 cents an hour or more. The lowest level of earnings was reported for those engaged in the production of infants' wear. Of the 116 homeworkers so occupied, over two-thirds received less than 5 cents an hour, and all but 6 received less than 15 cents an hour. As was noted earlier, such workers were mainly located in rural areas. Homeworkers producing women's knitted garments, concentrated mainly in metropolitan areas, seldom received less than 5 cents per hour but 40 of the 77 were reported as earning between 5 and 10 cents and 66 as earning less than 15 cents hourly. [1]

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[1] Represents the chief homeworkers of the 454 families engaged in home production of knitted outerwear surveyed.

Recent data on hourly earnings are available only from New York State. This information was obtained from 1,943 workers in 1937 and 1,761 in 1938 who were producing knitted outerwear in the home. [2] The median wage in 1937 was found to be 9½ cents per hour, and 10 cents per hour in 1938. The median, lower quartile, and upper quartile hourly earnings are shown in Table 29, by type of product.

Only a slight indication of hourly earnings subsequent to the effective date of the Fair Labor Standards Act is now available, and that is limited also to New York State. Time did not permit a complete tabulation from the New York Bureau of Homework Inspection files, but the New York Regional Office of the Wage and Hour Division obtained from those files a sample list of 51 homeworkers, for whom the average hourly earnings reported were believed to be fairly

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[1] U. S. Children's Bureau, op. cit., Table 8, p. 28.

[2] The data do not apply to a specific month or period but to any time within those respective years. Thus, the homeworker was included in the tabulation if she worked on knitted outerwear at any time during the 12 months preceding the inspector's visit. Information was then obtained as to her usual piece-rate and the usual number of hours required to complete a given lot of work. The averages were then computed from a compilation of the homeworkers' reports.

Table 29. — Knitted Outerwear Industry: Hourly Earnings of Homeworkers in New York State by Type of Product, 1937 and 1938

Type of Knitted Outerwear	1937				1938			
	Number Report-ing	Median Wage a/	First Quartile b/	Third Quartile c/	Number Report-ing	Median Wage a/	First Quartile b/	Third Quartile c/
		(cents per hour)				(cents per hour)		
Total	1,943	9½	d/	d/	1,761	10	d/	d/
Infants' garments								
Knitting & sewing	469	8	5	11½	414	8	5½	10½
Embroidering	163	9½	7	12	159	9½	7½	12
General	44	10	d/	d/	50	8	d/	d/
Women's garments								
Sweaters	587	12½	9½	17	583	12	9½	15½
Headwear	375	6	5	8	235	6	5	8
Other	138	8	d/	d/	171	9	d/	d/
Men's garments	30	15	d/	d/	15	34	d/	d/
General apparel	137	11	8	15	134	12	9	15½

Source: New York State Department of Labor, Bureau of Homework Inspection, Annual Report for 1938 (unpublished).

a/ Median: One-half of homeworkers reporting earned above or below specified figure.

b/ First Quartile: One-fourth of homeworkers reporting earned below specified figure.

c/ Third Quartile: Three-fourths of homeworkers reporting earned below specified figure.

d/ Not available.

representative of the New York group as a whole. The data present their average hourly rates between April 1 and August 15, 1939, as nearly as can be established by interviews and time study. These homeworkers were employed by 5 manufacturers who, according to the 1938 edition of Davison's Knit Goods Trade, produce one or more of the following types of garments: infants' and children's wear, sweaters, novelties and various types of women's knitted outerwear. Their reported earnings ranged from 1½ cents to 35 cents per hour. Sixteen of the 51 homeworkers, or less than one-third, reported that they had earned 25 cents an hour or better during this interval, but 4 of these reported lower earnings on some lots during the same period. One homeworker reported earnings of 30 cents per hour, and two of 35 cents hourly during this time. [1]

The foregoing description of homework conditions was confined to a compilation of available data which throw light on the number of homeworkers in the knitted outerwear industry, on the average hours worked per week, and on hourly earnings. No qualitative discussion of problems arising from the homework system of production need be attempted. Such problems apply to other industries as well as to knitted outerwear, and do not appear capable of simple solution nor to decisions based on the experience of a single industry.

The knitted outerwear industry is aware of the difficulties involved, and its National Association advocates that a serious effort be made to regulate homework in the production of knitted outerwear. [2]

At the present time, seventeen states have homework laws in operation, [3] which involve specific prohibitions or regulations of homework, but varying considerably as to extent and character of the measures involved. Of these, eight states prohibit homework at least in specified industries, and only four include prohibitions involving the knitted outerwear industry in whole or in part. [1] Most of the state laws which are applicable to this industry require licenses for employers or certificates for homeworkers or both; some require further records; but only four make any provision with respect to wages and hours. [2]

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[1] Wage and Hour Division, New York Regional Office, Memorandum of September 21, 1939.

[2] Harold L. Lhowe, op. cit., p. 7.

[3] California, Connecticut, Illinois, Indiana, Maryland, Massachusetts, Michigan, Missouri, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, and Wisconsin (U. S. Department of Labor, Division of Labor Standards, op. cit., p. 3.)

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[1] New Jersey; Children's and infants' apparel when produced in tenement houses.
New York; Men's and boys' neckwear.
Oregon; Complete prohibition in needlecraft occupations (including knitting).
Rhode Island; Complete prohibition except for physically handicapped and other cases where special certificate is granted.

[2] Connecticut, Massachusetts, Ohio, and New York. The general purport of these provisions is to provide homeworkers with the same wages or minima as corresponding factory employment, and under the same hours.

g. Financial Organization

(1) Types of business structure

The National Knitted Outerwear Association reports that most firms in this industry are corporations. A smaller number are partnerships, and a still smaller proportion are individual ownerships. No further data are available to distinguish between the latter two types, but Davison's Directory for 1938 shows that 379, or nearly half, (46.1 percent) of the firms producing knitted outerwear were incorporated. [1]

Of these 379 corporations, 162 or 41.7 percent reported capitalization, as indicated in the following table. [2] Approximately one-fifth of these companies were capitalized at less than $30,000; nearly half at under $100,000; and over four-fifths at less than $300,000. Only 14 firms, representing 8.7 percent of those reporting, were capitalized at one million dollars or above. Some of these firms, and particularly the larger companies, produce other knit goods in addition to outerwear, and so are not wholly representative of capital investment for the products under consideration. Moreover, in view of the considerable number of family shops and other small mills as previously described, it can be assumed that capital investments in partnerships and individual ownership firms are smaller, on the average, than for corporations.

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[1] Compiled from Davison's Knit Goods Trade, 1938 Edition.
[2] Capitalization is used as a general term, since some of the corporations listed may have reported operating capital and some may have reported net worth. Therefore, the data represent only an approximation of capital investment.

Table 30 -- Knitted Outerwear Industry: Corporations Reporting Capitalization, 1938 a/

Capitalization	Corporations		
		Percent of Total	
	Number	Simple	Cumulative
Under $10,000	7	4.3	4.3
$10,000 and under $30,000	27	16.7	21.0
30,000 " " 40,000	7	4.3	25.3
40,000 " " 50,000	6	3.7	29.0
50,000 " " 75,000	22	13.6	42.6
75,000 " " 100,000	10	6.2	48.8
100,000 " " 200,000	35	21.6	70.4
200,000 " " 300,000	18	11.1	81.5
300,000 " " 400,000	7	4.3	85.8
400,000 " " 500,000	1	.6	86.4
500,000 " " 1,000,000	8	4.9	91.3
1,000,000 " " 2,000,000	11	6.8	98.1
2,000,000 " " 10,000,000	3	1.9	100.0
Total number reporting	162	100.0	

Source: Data compiled from Davison's Knit Goods Trade, 1938 Edition.

a/ Of 379 knitted outerwear corporations listed, 162 or 42.7 percent reported capitalization.

(2) Credit position of firms

The credit structure in this industry involves a maze of interrelationships, variations as between regular manufacturers, contract-employers, and contractors, and variations among individual firms of all three classifications. At present, quantitative data are almost entirely lacking and therefore only a brief description can be undertaken.

Table 31 indicates the major types of credit relationships existing, both for credit obtained by the industry and credit extended on sales.

Table 31 -- Knitted Outerwear Industry:
Prevalent Credit Relationships

Purpose of Credit	Sources of Credit (Credit from:)	Recipient of Credit (Credit to:)	Usual Credit Terms
	Credit Received		
1. Raw Materials	(a) Yarn jobbers	Regular manufacturers and contract employers	2/60/EOM [d]
	(b) Yarn manufacturers	Large regular manufacturers and contract employers	2/10/EOM with 60 days extra [c]
2. Equipment	Machine Manufacturers	Regular manufacturers and contractors	25% down; 12-24 monthly installments; 6% on unpaid balance
3. Operating and other capital [a]	(a) Factors	Regular manufacturers [b]	Varies
	(b) Contract employers	Contractors	Varies
	Credit Extended		
4. Sales	(a) Regular manufacturers	Wholesalers	3/10/EOM
	(b) Regular manufacturers and contract employers	Retailers	8/10/EOM

Sources: Raw Materials and Sales: National Knitted Outerwear Association and individual manufacturers.
Equipment: Knitting Machine Manufacturers' Association.

[a] Sometimes includes other forms of capital.

[b] According to the National Knitted Outerwear Association, factors are used by most manufacturers selling through wholesalers, who account for about 30 percent of total firms. (Interview with H. L. Lhowe, July 21, 1939.)

[c] i.e. 2/70/EOM. Also often 2/60/EOM. Interest thereafter at 6 percent. (EOM is the trade abbreviation for end-of-month.)

[d] Sometimes allow up to six months before charging interest, then at 6 percent.

It may be noted that credit is available to manufacturers in this industry for purchase of raw materials, purchase of machinery, and for operating capital. In addition, credit is obtained through regular banking channels. On the other hand, the industry extends credit to wholesalers and retailers.

Both purchases of yarns and sales of garments involve trade discounts terms which are forfeited if payment is not made within certain specified periods. Thus, wholesalers are ordinarily allowed a 3 percent discount for payment by the 10th day after the end of month, and retailers are offered an 8 percent discount. Knitted outerwear manufacturers, on the other hand, are generally permitted only a 2 percent discount on yarn purchases, but the period allowed before interest is required is sometimes as long as six months. In other words, the penalties for delayed payment are less and credit terms are more liberal.

It has been stated that when second-hand equipment is purchased on credit, no down payment is required, 1/ while for new equipment the initial payment is usually 25 percent but may be as low as 10 percent. The remainder is then payable in from 12 to 24 equal monthly installments and an interest charge of 6 percent is usually required on the unpaid balance. No great incentive for immediate payment in full appears to exist, since only a few smaller machine manufacturers offer a 5 percent discount for cash. Most of them either offer a 2 percent discount or none at all. 2/ These arrangements permit small manufacturers or contractors

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1/ Mr. Harold L. Lhowe, National Knitted Outerwear Association, Interview of October 4, 1939.

2/ Knitting Machine Manufacturers' Association, Letter of August 10, 1939.

to purchase machinery with very little initial capital investment, and help to encourage the entrance of new firms into the industry.

The facilities offered by factors offer another avenue for credit, as well as for assumption of credit risks. This method is used extensively by the industry, particularly by small firms. The major business of the factoring house is to purchase open accounts. The factor makes a loan of as high as 90 percent on the manufacturer's accounts receivable, the remaining 10 percent being returned upon payment of the accounts. The factor's charges include a factorage fee of about 2 percent plus annual interest at 6 percent. 1/ Interest, however, may be considerably higher, for if a 90-day loan is made at 6 percent, the expected charge would be 1½ percent for this quarter year; yet the same 1½ percent applies if payment is made within one month. In such instances, the interest received amounts to 18 percent of the factor's investment, calculated on an annual basis. Moreover, the factorage fee is sometimes well in excess of 2 percent among the less reliable factoring houses.

A very close relationship exists between the factor and clients whose open accounts are purchased without recourse, that is, when the factor assumes the full risk. For such firms, the factor not only supervises credits but advises on merchandising, styling, and financial matters. 2/ However profitable such transactions often prove to the factor, it is probable that small manufacturers derive considerable benefit as well, inasmuch as the purchase of open accounts provides the manufacturer with a revolving fund of operating capital. Thus, factoring appears to

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1/ Testimony of William Hurd Hillyer, Ass't. Vice President of James Talcott Inc., before the Temporary National Economic Committee, Washington, D.C., May 26, 1939.

2/ Ibid.

offer further encouragement to extensive use of credit in this industry, and to small-scale operations with little initial investment.

Finally, credit arrangements between contract-employer and contractor give particular impetus to very small-scale enterprise. The contract-employer can operate in two ways. He can charge the cost of his yarn to the contractor, who charges him in turn for the cost of the finished garment. In this case, the contractor assumes the risk for waste or loss of yarn as well as general business risks and costs. On the other hand, the contract-employer may merely pay the contractor a given sum per dozen for his labor so that the contractor becomes essentially a commission knitter. In either case, the contract-employer often provides the necessary working capital.

The foregoing description of credit conditions in this industry indicates that financial requirements can be met to a large degree by obtaining credit for yarns, equipment, and working capital. This situation provides an unusually free opportunity for entrance into the industry and attracts small and frequently inefficient operators whose attempts at survival are often accompanied by downward pressures on prices and wages and by various trade practices that jeopardize the financial stability of the long established firms as well. However, while the intense competition that results is disadvantageous to older and larger firms and occasions a high turnover among the marginal producers, it at the same time provides incentive for the development of improved products and more efficient techniques of production.

2. Distribution Economics

The discussion of distribution economics is focused upon channels or outlets of distribution; prices both at wholesale and retail; the influence of style factors; and profitability of retail sales.

a. Channels of distribution

The most recent tabulations of distribution channels are those of the Census of Business for the year 1935, as shown in Table 32.

Table 32 -- Knitted Outerwear Industry: Distribution of Sales by 645 Manufacturing Plants, 1935. a/

Channels of Distribution	Net Sales		Number of Plants	
	Amount (in 1000's)	Percent	Total	Selling Exclusively
Total for Industry	$137,262	100.0	645	
To retailers (including chains) b/	57,042	41.6	349	192
To wholesalers and jobbers c/	65,002	47.3	391	246
To industrial and other large users	10,851	7.9	32	11
To household consumers	2,836	2.1	41	16
Not allocated	1,531	1.1	22	16
Sales negotiated through brokers, agents, commission houses.	26,839	19.6	144	42

Source: Census of Business, April 1937.

a/ Excludes 108 contract establishments which made no sales but received $3,363,000 for processing materials owned by others.

b/ Including $763,000 (0.6% of total) to own retail stores.

c/ Including $10,727,000 (7.8% of total) to own wholesale branches.

At that time, nearly one-half of total net sales (47 percent) were made through wholesalers and jobbers, and but a slightly smaller proportion (about 42 percent), were made direct to retailers, including chain stores. About 8 percent went to industrial and other large users, while hardly more than 2 percent were made direct to household consumers. Approximately one-fifth of total sales were negotiated through agents, brokers, and commission houses.

The table further reveals the number of plants using each of these channels of distribution, and the number using a given type of outlet exclusively. Thus, 349 of the 645 plants sold at least some products direct to retailers, while 192 of these 349 plants used no other sales avenue; 391 plants sold to some extent through wholesalers, and 246 of these 391 plants sold exclusively in this manner. [1]

Present estimates indicate that only about 30 percent of current sales are made through regular wholesalers or jobbers; while approximately 50 percent are made direct from manufacturers to retailers, and an additional 20 percent are sold through contract employers, namely jobber-manufacturers. [2] Since these jobber-manufacturers sell direct to the retail trade, it appears that roughly 70 percent of total sales are now made from either regular or jobber-manufacturers direct to retailers.

The importance of sales direct to retailers varies according to type of products. This method of distribution is understood to be most prevalent in the case of sweaters, whereas bathing suits and headwear are still sold extensively through regular wholesalers. [3]

Various reasons account for the general trend towards direct sales to retailers, among which four should be stressed. First, the increased importance of style, which makes timeliness an essential requirement. Style changes cannot be anticipated long in advance, and the time-lag involved in selling through wholesalers results in a tendency to confine this method of distribution to staple garments.

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[1] A considerable number of the contract shops, whose sales are made indirectly through contract-employers, are excluded from this tabulation.

[2] Mr. Harold L. Lhowe, National Knitted Outerwear Association, Interview of July 21, 1939.

[3] Mr. Sidney Korzenik, National Knitted Outerwear Association, Interview of July 19, 1939.

Second, the reduction in sales through wholesalers is due in part to the increased use of the contract system of production previously noted, whereby the jobber-manufacturer (contract-employer) who consigns his own yarns for manufacture is displacing the regular wholesaler who purchases outright. Third, chain stores have been rising rapidly in importance as retail outlets. The large orders of such organizations are ordinarily placed directly with manufacturers rather than with wholesalers, since their usually lower retail prices and price lines leave less opportunity for wholesalers' margins. Finally, general business conditions, in addition to style factors, have occasioned an increased reluctance, on the part of retailers, to make advance commitments. This hand-to-mouth buying has, of course, affected production as well as distribution and has encouraged manufacture in relatively small lots to specific retailer's order.

b. Prices

(1) Wholesale prices

Complete data on either wholesale or retail price trends would be extremely difficult to compile, because of the many different garments and accessories produced by this industry as well as the continual changes in style and quality that occur.

The nearest approximation to the general trends of wholesale unit value of eight types of knitted outerwear is contained in Table 33. These data do not represent actual selling prices but, rather, average wholesale value of production, computed from Census data. Primarily, they reflect shifts in volume sales from lower to higher price levels,

Table 33 -- Knitted Outerwear Industry: Average Wholesale Value per Dozen a/ for Major Product Classifications, in Selected Years, 1929 to 1937.

Year	Average Wholesale Value in dollars (per dozen)							
	Sweaters, sweater-coats & jerseys	Bathing suits	Dresses and suits	Scarfs Shawls, & mufflers	Neck-ties	Head-wear	Infants' wear	Ski suits
1929	$18.60	$21.62	$130.85	$ 9.16	$2.74	$4.83	b/	b/
1931	13.91	13.36	85.43	9.47	2.51	3.04	b/	b/
1933	9.59	13.62	63.57	6.10	3.88	3.03	b/	b/
1935	12.62	14.70	69.59	6.48	3.99	4.00	b/	b/
1937	12.57	14.35 c/	69.68 c/	5.84 c/	2.26	3.32	$11.15	$86.24
	Index (1929 = 100)							
1929	100.0	100.0	100.0	100.0	100.0	100.0	b/	b/
1931	74.8	61.8	65.3	103.4	91.6	62.9	b/	b/
1933	51.6	63.0	48.6	66.6	141.6	62.7	b/	b/
1935	67.8	68.0	53.2	70.7	145.6	82.8	b/	b/
1937	67.6	66.4	53.3	63.8	82.5	68.7	b/	b/

Source: Computed from Census of Manufactures data.

a/ Represents total value of production divided by total volume of production (in dozens), by product classifications.

b/ Data not available.

c/ Contract factories not included to avoid disclosing data reported by individual establishments.

or the reverse [1].

The table reveals that average wholesale value for the various classifications of products dropped appreciably during the depression period between 1929 and 1933, neckties being the only exception. Average prices of the important sweater group, and also suits and dresses, fell to about half the 1929 level by 1933, while the average price of bathing suits fell to about 63 percent of the 1929 level. However, this slump was followed by notable increases in average value between 1933 and 1935 for every classification. Since 1935, the data show considerable stability except for the relatively unimportant neckwear and headwear groups. In short, demand for higher priced goods lapsed between 1929 and 1933, rose considerably by 1935, and remained comparatively stable through 1937.

Although these value data are fairly significant of trend for the industry as a whole, they often conceal drastic shifts in the kinds, and particularly the quality, of garments produced. For example, the range in wholesale prices per dozen of a complete line made by a single manufacturer, as reported to the U. S. Bureau of Labor Statistics, has undergone various alterations in recent years [2]. The price for men's all worsted slip-on sweaters ranged from $22.50 to $72.00 per dozen for the first half of 1936, and this range gradually fluctuated downward to a range of from $11.00 to $36.00 during the first half of

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[1] Production statistics were used for want of shipments figures, but the difference is not likely to be great, because inventories are generally small.

[2] Wholesale Price Division. Complete data reproduced in Appendix Table E. Since no other data are available on shifts in price range, it is not known to what extent this manufacturer's report may be representative of the industry.

1939. In other words, the price range in 1939 was approximately half that reported for the first six months in 1936. Similar, although less extensive shifts occurred for this manufacturer's prices for women's all worsted slip-on sweaters; while the price range for bathing suits, both men's and women's, remained comparatively stable.

Worsted yarn prices also fluctuated continually throughout these years. The general trend was also downward except for occasional months, but the fall of yarn prices was not comparable to the price declines for finished products as reported by one knitted outerwear manufacturer. Clearly these abrupt price changes on garments do not primarily reflect fluctuations in price for any identical grade of garment. They indicate shifts in the kind of sweaters or bathing suits produced, a trend in volume sales away from higher to comparatively lower cost garments. It is not known to what extent the policies of this producer represent a general trend, but his report helps to substantiate a conclusion that the reduction in average wholesale value data noted in Table 33 probably represents shifts in production to lower priced volume items more than changes in the wholesale prices of approximately identical garments.

This conclusion is further reinforced by monthly wholesale price trends from 1934 to 1939 for three specific types of sweaters, as disclosed in Table 34. In obtaining these data, the U. S. Bureau of Labor Statistics requested manufacturers to report regularly on garments with as nearly as possible identical specifications 1/.

1/ Wholesale Price Division. No price trends are available for other knitted outerwear products.

Table 34 -- Knitted Outerwear Industry: Wholesale Prices and Price Indexes of Sweaters, by Months, 1934 through June 1939

Months	Prices per Garment						Price Index (1935 = 100)					
	1934	1935	1936	1937	1938	1939	1934	1935	1936	1937	1938	1939
Children's Coat or Slip Over a/												
Yearly Average	b/	$0.92	$0.93	$1.03	$0.86	--	b/	100.0	100.7	111.5	93.0	--
January	b/	0.92	0.92	1.04	0.92	$0.84	b/	100.0	100.0	112.5	100.0	91.7
February	b/	0.92	0.92	1.04	0.88	0.84	b/	100.0	100.0	112.5	95.8	91.7
March	b/	0.92	0.92	1.04	0.88	0.84	b/	100.0	100.0	112.5	95.8	91.7
April	b/	0.92	0.92	1.04	0.84	0.84	b/	100.0	100.0	112.5	91.7	91.7
May	b/	0.92	0.92	1.04	0.84	0.84	b/	100.0	100.0	112.5	91.7	91.7
June	b/	0.92	0.92	1.04	0.84	0.84	b/	100.0	100.0	112.5	91.7	91.7
July	b/	0.92	0.92	1.04	0.84	-	b/	100.0	100.0	112.5	91.7	-
August	b/	0.92	0.92	1.04	0.84	-	b/	100.0	100.0	112.5	91.7	-
September	b/	0.92	0.92	1.04	0.84	-	b/	100.0	100.0	112.5	91.7	-
October	b/	0.92	0.92	1.04	0.84	-	b/	100.0	100.0	112.5	91.7	-
November	b/	0.92	0.92	1.04	0.84	-	b/	100.0	100.0	112.5	91.7	-
December	b/	0.92	0.99	0.92	0.84	-	b/	100.0	107.6	100.0	91.7	-
Men's Slip-On or Button c/												
Yearly Average	2.11	2.09	2.29	2.64	2.36	-	100.7	100.0	109.6	126.1	112.7	-
January	2.07	2.07	2.19	2.42	2.53	2.30	99.0	99.0	104.8	115.8	121.1	110.0
February	2.07	2.07	2.30	2.53	2.53	2.30	99.0	99.0	110.0	121.1	121.1	110.0
March	2.07	2.07	2.30	2.53	2.42	2.30	99.0	99.0	110.0	121.1	115.8	110.0
April	2.07	2.07	2.30	2.53	2.42	2.30	99.0	99.0	110.0	121.1	115.8	110.0
May	2.07	2.07	2.30	2.53	2.30	2.30	99.0	99.0	110.0	121.1	110.0	110.0
June	2.07	2.07	2.30	2.53	2.30	2.19	99.0	99.0	110.0	121.1	110.0	104.8
July	1.96	2.07	2.30	2.76	2.30	-	93.8	99.0	110.0	132.1	110.0	-
August	1.96	2.07	2.30	2.76	2.30	-	93.8	99.0	110.0	132.1	110.0	-
September	2.04	2.07	2.30	2.76	2.30	-	97.6	99.0	110.0	132.1	110.0	-
October	2.30	2.07	2.30	2.76	2.30	-	110.0	99.0	110.0	132.1	110.0	-
November	2.30	2.19	2.30	2.76	2.30	-	110.0	104.8	110.0	132.1	110.0	-
December	2.30	2.19	2.30	2.76	2.30	-	110.0	104.8	110.0	132.1	110.0	-
Men's Pull Over d/												
Yearly Average	6.37	6.37	6.37	6.59	6.10	-	100.0	100.0	100.0	103.5	95.8	-
January	6.37	6.37	6.37	6.37	6.81	5.15	100.0	100.0	100.0	100.0	106.9	80.8
February	6.37	6.37	6.37	6.37	6.81	b/	100.0	100.0	100.0	100.0	106.9	b/
March	6.37	6.37	6.37	6.37	6.81	b/	100.0	100.0	100.0	100.0	106.9	b/
April	6.37	6.37	6.37	6.37	6.81	b/	100.0	100.0	100.0	100.0	106.9	b/
May	6.37	6.37	6.37	6.37	6.81	b/	100.0	100.0	100.0	100.0	106.9	b/
June	6.37	6.37	6.37	6.37	6.81	b/	100.0	100.0	100.0	100.0	106.9	b/
July	6.37	6.37	6.37	6.81	5.39	-	100.0	100.0	100.0	106.9	84.6	-
August	6.37	6.37	6.37	6.81	5.39	-	100.0	100.0	100.0	106.9	84.6	-
September	6.37	6.37	6.37	6.81	5.39	-	100.0	100.0	100.0	106.9	84.6	-
October	6.37	6.37	6.37	6.81	5.39	-	100.0	100.0	100.0	106.9	84.6	-
November	6.37	6.37	6.37	6.81	5.39	-	100.0	100.0	100.0	106.9	84.6	-
December	6.37	6.37	6.37	6.81	5.39	-	100.0	100.0	100.0	106.9	84.6	-

Source: U. S. Bureau of Labor Statistics, Wholesale Price Division (unpublished data).

a/ All worsted, 3-6 years, New York.
b/ No quotation.
c/ All wool, factory
d/ All wool, f.o.b. distribution points (53 cities).

Staple items were selected, for which specifications do not vary as extensively as they do in the case of novelty garments.

An examination of the table reveals that wholesale prices on these staple items are quite inflexible. Children's coat or slipover sweaters maintained a constant level throughout 1935 and through November 1936; rose slightly during the next three months, and were unchanged until December 1937, fell to 91.7 percent of the 1935 average by April 1938, and remained at that level through June 1939, the latest month reported.

Men's slip-on or button sweaters showed slightly greater variation, but for long periods no price change occurred. Wholesale prices for men's pullover sweaters shifted only three times during the 61 months reported. The level remained constant throughout the years listed until July 1937; rose by not quite seven percent in that month, and held unchanged until July 1938, when the index dropped to almost 85 percent of the 1935 average, and slightly further in January 1939 1/. However, since specifications were not absolutely identical throughout this entire period, important price changes that did occur may also have represented alterations in the quality of the garments.

For purposes of comparison with worsted yarn price trends, the indexes for these three types of sweaters were averaged for the years 1935 through 1938, as shown in Table 35. This combined index indicates more frequent price variation than did the index for any one sweater type, since price shifts for the three usually did not occur

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1/ No quotations are available for this item for more recent periods.

Table 35 -- Knitted Outerwear Industry: Comparison of Wholesale Price Indexes of Sweaters and of Worsted Yarn, by Months, 1935- 1938

(1935 = 100)

Months	1935	1936	1937	1938
		Sweaters a/		
Yearly Average	100.0	103.4	113.7	100.5
January	99.7	101.6	109.4	109.3
February	99.7	103.3	111.2	107.9
March	99.7	103.3	111.2	106.2
April	99.7	103.3	111.2	104.8
May	99.7	103.3	111.2	102.9
June	99.7	103.3	117.2	102.9
July	99.7	103.3	117.2	95.4
August	99.7	103.3	117.2	95.4
September	99.7	103.3	117.2	95.4
October	99.7	103.3	117.2	95.4
November	101.6	103.3	117.2	95.4
December	101.6	105.9	113.0	95.4
		Yarn b/		
Yearly Average	100.0	122.8	133.6	100.0
January	89.5	125.8	140.7	105.1
February	88.8	128.4	142.6	102.1
March	86.5	127.1	141.4	97.5
April	83.0	121.7	141.4	94.7
May	83.5	120.6	141.4	94.7
June	95.6	120.2	136.9	94.7
July	101.4	118.6	136.2	98.5
August	101.6	118.0	138.1	99.9
September	103.7	118.0	136.2	102.5
October	116.2	118.0	128.7	101.8
November	123.9	123.2	112.9	104.6
December	125.8	134.6	107.2	103.7

Source: Sweaters: Computed from data compiled by the U.S. Bureau of Labor Statistics, Wholesale Price Division.
Yarns: Prices compiled from weekly quotations by International Statistical Bureau, Inc. Index computed.

a/ Represents a combined unweighted index of prices for the three following types of sweaters:
(1) Children's worsted, 3-6 years, coat or slip over, New York.
(2) Men's all wool, slip on or button, factory price.
(3) Men's all wool, pull over f.o.b. distribution points (53 cities).

b/ 2/20 worsted yarn, quarterblood.

simultaneously. Yet it is evident that prices, at least for staple types of sweaters, were highly inflexible as compared to yarn prices, which fluctuated almost constantly and by proportionately greater amounts.

It is significant that, although the cost of yarns appears to represent, on the average, more than half of total operating cost of manufacturers in this industry 1/, price fluctuations are slow to follow the trends of yarn prices. In 1935, for example, the yarn index based on that year's average fell to 83.5 in May, then rose rapidly to nearly 126 in December, a difference of over 42 percent. Yet the sweater price index remained constant until November, and then increased by less than two percent. In 1936, yarn prices fell from an index of over 128 in February, based on the 1935 average, to 118 in August - October, with no change in the sweater prices. It required the influence of a 16.6 percent increase in yarn prices from November 1936 to February 1937 (123.2 to 142.6) to occasion a 7.6 percent price increase for sweaters (103.3 to 111.2). In this one case, a substantial part of the increased cost of yarn appears to have been covered by the increased price of the final product 2/. Conversely, when yarn prices fell rapidly, as during the second half of 1937 and the first four months of 1938, sweater prices did not immediately respond, but rather rose to 117, then dropped more gradually. Again, after June 1938, yarn

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1/ Based on Economic Section cost survey. See Part II, Appendix A.

2/ Assuming a ratio of materials cost equal to half of total costs, the 16.6 percent rise in the price of yarn would have been covered by an 8.4 percent rise in the price of sweaters, other costs remaining unchanged.

prices showed a small increase, while sweater prices declined to 95.4 during the last six months of the year.

To some extent, these data indicate the expected lag between raw materials and finished goods prices, due to the time required for manufacture. Yet, clearly, sweater prices changed only after substantial changes in the cost of yarn, indicating that other factors have a strong influence on prices.

The explanation of this apparent stablility of prices appears to be that a large proportion of knitted outerwear is sold in standardized price brackets. When cost factors change to a moderate degree, the industry is more likely to make minor changes in quality specifications than to change the price.

The wholesale prices of particular items of knitted outerwear are generally derived from the standardized retail prices at which each garment is made to sell. Wholesale prices are less standardized than retail prices, but there are distinct wholesale price brackets, representing the most usual prices to a particular outlet for goods to sell at a fixed retail price. This situation, as it applied during 1938, is illustrated by the price and sales data shown in Table 36. This table shows the wholesale and retail prices of the largest-selling line of sweaters produced by each of 58 manufacturers who furnished this information to the Economic Section. These wholesale prices have been grouped according to the corresponding retail price brackets and classified, after consultation with the trade, according to the type of outlet probably used by the manufacturer. While the information in Table 36 relates specifically to sweaters, similar price brackets and price relationships are understood to exist for bathing suits and

Table 36. -- Knitted Outerwear Industry: Retail and Wholesale Prices of Sweater Volume Sellers as Reported by Sample Firms, and Total Net Sales for Firms Reporting, 1938

Number of Quotations	Retail Price Brackets and Prices (per garment)	Wholesale Prices (per dozen)			Total Net Sales of Firms, 1938	
		To Jobbers	To Retailers	Odd Prices	Amount	Percent of Total Reporting
Total - 58					$12,050,309	100.0
5	$1.00					15.3
1	1.00	$6.00	--	--	75,146	0.6
1	1.00	6.25	--	--	10,925	0.1
2	1.00	6.75	--	--	1,455,367	12.1
1	1.00	--	$8.00	--	300,000	2.5
1	$1.25	--	--	$12.50	710,223	5.8
15	$1.95-$2.00					23.1
3	1.98	$11.50	--	--	$325,706	2.7
1	2.00	11.50	--	--	89,890	0.7
1	1.98	12.00	--	--	108,648	0.9
2	1.95	12.00	--	--	200,023	1.7
1	1.95	12.75	--	--	125,410	1.0
1	1.98	--	--	$13.50	381,401	3.2
1	1.98	--	$15.00	--	94,637	0.8
1	2.00	--	15.00	--	217,000	1.8
2	1.95	--	15.50	--	1,063,545	8.8
1	1.98	--	15.75	--	92,980	0.8
1	2.00	--	15.75	--	85,694	0.7
24	$2.50-$3.00					41.3
1	2.95	--	--	$15.75	$148,713	1.2
6	2.95	$16.50	--	--	1,245,680	10.3
2	2.50	--	--	17.50	395,656	3.5
3	2.95	--	--	18.50	743,008	6.2
3	3.00	--	$21.00	--	321,960	2.7
1	2.75	--	22.50	--	21,266	0.2
5	2.95	--	22.50	--	2,206,951	18.3
1	2.98	--	22.50	--	104,783	0.9
1	2.85	--	22.85	--	56,000	0.5
1	2.95	--	--	30.00	120,343	1.0
6	$3.95-$4.00					7.6
2	3.95	--	--	$21.00	$212,385	1.8
1	3.95	$25.50	--	--	159,945	1.3
1	4.00	--	$28.50	--	179,227	1.5
2	3.95	--	30.00	--	365.250	3.0
1	$4.50	--	--	$32.50	$63,027	0.6
2	$5.00	--	$36.00	--	$264,639	2.2
1	$6.00	$36.00	--	--	$48,900	0.4
3	Over $6.00					0.4
1	6.50	--	--	$51.00	$22,525	0.2
1	7.50	--	--	51.00	8,126	a/
1	8.00	--	--	51.00	20,330	0.2

Source: Cost Survey of the Economic Section, Wage and Hour Division.

a/ Less than one-tenth of one percent.

infants' wear. More recently, wholesale prices are understood to have advanced in relation to the corresponding retail prices, in part because of the recent advance in yarn prices.

A striking contrast is evident between the wholesale price to the jobber and to the retailer on garments made to retail at essentially the same price. Thus the most common relationships, as they appear in Table 36, were as follows during 1938:

Retail Price [1/] (per garment)	Wholesale Prices (per dozen)	
	To Jobber	To Retailer
$1.00	$ 6.75	$ 8.00
2.00	12.00	15.50
3.00	16.50	22.50
4.00	25.50	30.00
5.00	-	36.00

While the wholesale prices just listed predominate sufficiently to be termed wholesale price brackets, a considerable deviation from these prices was also evident in many cases. Thus the $1.00 articles were sold through jobbers at wholesale prices from $6.00 to $6.75 per dozen; $2.00 articles were sold through jobbers within the range $11.50 to $12.75, and direct to retailers at prices from $15.00 to $15.75; while $3.00 articles were sold to retailers at various prices from $21.00 to $22.85. Finally, Table 36 shows some distinctly odd prices such as the $1.98 retail item wholesaling at $13.50, and the $2.95 item which was sold wholesale at $15.75, while a $2.50 item

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1/ Garments made to retail at more than $5.00 are understood to be of little importance for volume business. So-called "low-end" goods include chiefly the garments to retail at $1.00 and $1.95, with a small quantity of very inexpensive items selling at retail prices as low as 50 and 59 cents. (Information furnished by Mr. Sidney Korzenik, National Knitted Outerwear Association, July 19, 1939, and by two manufacturers).

was sold wholesale at $17.50.

The recent increase in yarn prices has not disturbed the standard retail price brackets, but it appears in some cases to have raised the $8.00 wholesale price to $8.50, the $15.50 price to $16.50, etc.

(2) Retail prices

The various retail prices at which the largest volume of sweaters are sold have been shown in Table 36 above. That table indicates that the important retail price brackets for the different types of sweaters fall at or around $1.00, $2.00, $3.00, $4.00, and $5.00. Similar retail price brackets are found in the case of bathing suits and infants' wear.

Generalizations as to the trend of average retail prices of knitted outerwear products and as to variations in the retail price of identical articles at any one time are extremely difficult, because of the indefinite combinations of outerwear specifications and of conditions of sale. Knitted outerwear garments, in common with other types of clothing, are subject to very numerous differences in quality of fabric, workmanship and design, and they are sold to the consumer from many different types of outlets.

Some information as to recent trends of the retail prices of wool sweaters, as furnished by the U. S. Bureau of Labor Statistics, is given in Table 37. The average retail price of wool sweaters appears to have risen moderately from October 1935 until September 1937. After September 1937 these retail prices receded so that the average level at the end of 1938 was similar to that which prevailed at the end of 1936, and was slightly higher than in October 1935. While wool sweaters make

Table 37 -- Knitted Outerwear Industry: Retail Price Indexes for Three Types of Wool Sweaters, October 1935, to December 1938
(October 1935 = 100)

Pricing Periods	Men's pull-over a/	Boys' pull-over b/ Size 14 years	Girls' slip-over c/ Size 8 years
1935			
October	100.0	100.0	100.0
1936			
January	99.6	100.0	d/
September	101.0	101.3	101.1
December	102.4	106.3	d/
1937			
September	107.8	110.7	105.3
December	107.0	110.6	d/
1938			
September	106.3	107.8	103.5
December	105.5	105.3	d/

Source: U. S. Bureau of Labor Statistics, Retail Price Division. Where specifications have been revised, the indexes have been linked to give effect to the change in price level. This linking is not believed to affect the trend shown.

a/ Specifications:

October 1935 and January 1936 - All wool worsted yarn (no reworked wool); pull-over style; ribbed neck, cuff, and bottom; approximately 12 pounds per dozen.

September and December 1936 and 1937 - No reworked wool; pullover style or with short zipper, ribbed neck, cuff and bottom, approximately 12 pounds per dozen.

September and December 1938 - All wool worsted, 3-ply yarns; 2 x 2 ribbed knit neck, cuffs, and bottom; may have short slide fastener; full sized, well made; 12 pounds per dozen.

b/ Specifications:

October 1935; January, September, and December 1936; September and December 1937 - All wool worsted (no reworked wool), pullover V-neck style, closely knitted at wrists and bottom, about 6 - 7 pounds per dozen ("All wool worsted" omitted and "may have short zipper" added September 1936 through December 1937).

September and December 1938 - All wool worsted, 3-ply yarns; 2 x 2 ribbed knit neck, cuffs, and bottoms; may have short slide fastener; full-sized, well made; 10 pounds per dozen.

c/ Specifications:

Slip-over style (crew or V neck), inexpensive quality, size 8 years --all wool, worsted, single yarn; 2 x 2 ribbed knit neck, wrists, and waist; fair workmanship; may have short slide fastener.

d/ Not available.

up an important part of the output of the knitted outerwear industry, the exact extent to which the price changes shown in Table 37 are characteristic of the whole industry is not known. The relationship of the trend of finished goods to the trend of yarn prices has been noticed in the foregoing discussion of wholesale prices.

The range of retail prices which may be found at any one time for a knitted outerwear garment of a given specification is illustrated by the data in Table 38. The retail prices shown in this table were secured by agents of the U. S. Bureau of Labor Statistics working to the specification that the garment should be a boy's wool pull-over sweater, size 14 years, made of all-wool worsted, 3-ply yarns, and weighing 10 pounds per dozen. These sweaters were further specified as having a 2 x 2 ribbed knit neck, cuffs and bottoms. They might or might not have a short slide fastener. As a further guide, the agents were instructed to confine their reports to sweaters of "medium quality" which were "full-sized" and "well made".

Of the 132 price quotations obtained for the sweater, 106 quotations fall within the range between $2.95 and $3.00. This 5-cent range of prices undoubtedly represents differences in pricing practice on the same article among different stores. In addition, however, the agents reported 11 quotations of $2.49 and 7 quotations of $3.95 upon sweaters which also fall within the limits of the specifications described above. The difference between the $2.49 and $3.00 quotation may reflect some difference in the quality of the garments, but reflects also differences in mark-up policy between the various types of outlets. Part of these differences in mark-up were undoubtedly due to the exact type of service rendered by the store. Part of them are believed to be

Table 38.-- Knitted Outerwear Industry: Distribution of Retail Prices Reported in 32 Cities for Boys' Wool Pull-over Sweaters, Medium Quality, September 1938 [a]

Price	Number of Reports
$2.45	2
2.49	11
2.77	1
2.88	1
2.89	1
2.94	2
2.95	40
2.98	51
2.99	5
3.00	10
3.50	1
3.95	7
Total	132

Source: U. S. Bureau of Labor Statistics, Retail Price Division.

[a] Size 14 years; all-wool worsted, 3-ply yarns; 2 x 2 ribbed knit neck, cuffs, and bottoms; may have short slide fastener; full-sized, well made; 10 pounds per dozen.

due to differences in pricing policy which are not directly related to the quality of the article sold or the quality of the service rendered [1].

As between the extreme prices, $2.49 and $3.95, there are certainly differences in the quality of materials or in workmanship, even though the sweaters quoted at both of these prices conformed to specifications which are more precise than those used by most retail consumers. Finally, there were scattered prices on this article between $2.77 and $2.94, which probably reflect minor differences in quality or retail mark-up.

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[1] Some light on the factors which affect the operating results of department stores, and hence may affect mark-up policy, may be found in a study by Elizabeth H. Burnham: "Influence of Size of Business on Department Store Operating Results", Harvard Business Review, Winter 1938. Factors mentioned in this article which should have a bearing on mark-up policy are: Personalized service, including returns, deliveries and customer credit; source of supply (manufacturer or wholesaler), cash discounts; manufacturer's or store branding; merchandise investment; clearance policy and productivity of sales force.

Three further examples of retail price ranges of sweaters, together with the specifications of each of the garments priced, may be found in Appendix Table F.

c. Style influences on prices and consumption

Styled merchandise represents about 70 to 75 percent of production in this industry in contrast to the 25 to 30 percent consisting of staple lines [1]. Style, as a factor influencing increased sales through retailers and also hand-to-mouth buying, has already been described. It also has a considerable bearing on consumption and on prices.

It is almost axiomatic to state that effective styling has helped to bolster prices, but perhaps not to the extent that it has sustained consumption. Although the retail price brackets previously described are comparatively stable, continuance of sales in the higher price ranges appears to be possible largely because the element of style is present to attract consumer preference over substitute apparel. For relatively low priced merchandise, the problem of competition with other types of apparel may be less acute, but novel effects contribute importantly to stimulation of demand and through this to maintenance of price levels.

1/ Estimate of Mr. Harold L. Lhowe, National Knitted Outerwear Association; Interview of October 4, 1939.

A considerable amount of style piracy exists, the copied designs generally being of cheaper quality and selling at lower prices than the original [1]. While this practice is undesirable from the standpoint of the designer, insofar as it retards demand for the expensive originals, it nevertheless points to the importance of fashion for popular priced goods as well, and the improved designs strengthen prices in the volume seller range.

d. Retail merchandising results

Unfortunately, no separate data on retailing results are available for knitted outerwear. Tabulations made by the National Retail Dry Goods Association [2] are by store departments rather than by separate products, and knitted outerwear garments are generally sold in departments which also sell the products of other industries. Thus knitted outerwear for men is sold in the men's furnishing department, which carries a great variety of other lines; knitted outerwear for boys or for girls is sold together with many other types of apparel in the boys' wear and girls' wear departments, respectively. Only two departments listed contain an appreciable proportion of outerwear: the sportswear and knitwear department, which is confined to women's and misses' knitted apparel but also retails woven goods; and the infants' wear department, wherein woven infants' wear are also sold.

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[1] N.R.A. Division of Review, Work Materials No. 80, op.cit., p.252.

[2] National Retail Dry Goods Association, Controllers' Congress, 1938 Departmental Merchandising and Operating Results, June 1939.
Note: These and the following data do not include major chain stores and mail order houses.

(1) Profitability of retail sales

Because of these limitations, the data on profits and losses as a percent of retail sales presented in Table 39 are by no means definitive of merchandising results for knitted outerwear products.

Table 39.-- Knitted Outerwear Industry: Profit or Loss Sustained by Store Departments Selling Knitted Outerwear, as Compared to Other Items, 1936-1938
General Average: Department and Specialty Stores with Sales Volume over $500,000.

Store Departments	Profit or Loss (L) as a Percent of Sales		
	1936	1937	1938
TOTAL STORE	2.6	1.6	0.3
Total Main Store	2.6	1.9	0.7
Infants' wear	3.8	4.0	3.3
Sports wear, knit apparel, etc.	0.6	L 0.8	L 1.7
Blouses and skirts	3.0	L 0.1	0.1
Men's furnishings	6.1	4.8	3.7
Boys' wear	1.2	0.2	L 2.2
Girls' wear	1.9	0.6	L 2.0
Women's and misses' dresses	L 2.3	L 2.9	L 4.0
Knit Underwear	6.8	5.7	4.2
Total Basement Store	1.4	0.4	L 0.3
Girls' and infants' wear	2.3	0.7	0.5
Blouses, skirts and sports wear	1.3	L 1.0	L 0.9

Source: Controllers' Congress, National Retail Dry Goods Association, 1938 Departmental Merchandising and Operating Results of Department and Specialty Stores, Table 9.

As may be seen, the infants' wear departments showed a proportionately high profit in the years 1936, 1937 and 1938 as compared to either the averages for the main store or for the total store, including the basement. On the other hand, the sportswear and knit apparel departments showed a less than average profit in 1936 and a loss of 0.8 percent in 1937 and 1.7 percent in 1938. However, greater losses were evident in various other main store apparel departments, which sell a comparitively small proportion of knitted outerwear or none at all. The basement store average for all types of merchandise also showed a declining profit through these three years, amounting to a loss of 0.3 percent in 1938. The girls' and infants' wear departments showed far better results throughout, although the blouses, skirts, and sportswear departments showed about an average profit in 1936 and a loss in both 1937 and 1938.

(2) Retail mark-on and other merchandising results

Further detail on retail operating results in 1938 presented in Table 40, offers some explanation for the losses noted. For the sportswear and knit apparel departments, a mark-on of 38.8 percent was almost equal to the average for the total store, including the basement, although slightly lower than the average for the main store, excluding the basement. Markdowns, however, were appreciably greater. In part, this results from a very high percentage of returns of merchandise by store customers, amounting to over 16 percent of gross sales as compared to a store-wide average of 9 percent and a main-store average of 9.9 percent. Returns also involve various additional expenses to the store, and reduce the profitability of a department. Losses in the sportswear and knit apparel, as well as other apparel departments, have occurred despite the very high cash discounts on purchases from wholesalers, which for these groups averaged over 5 percent of sales, as compared to the store average of only 2.8 percent.

Part of this condition may be attributed to the decline in value of sales between 1937 and 1938. Still, the sportswear and knitted apparel departments showed a decline of only 4 percent, as compared to a 7 percent reduction in sales for the total store average, and while sales of knitted underwear declined by 10 percent, a 4 percent profit was nevertheless reported.

From the above data, it appears probable that these losses could be at least mitigated by greater retailing efficiency. On the other hand, the increasing importance of chain stores in this and other

Table 40-- Knitted Outerwear Industry: Merchandising and Operating Results of Store Departments Selling Knitted Outerwear, as Compared to Other Items, 1938.

(General Average: Department and specialty Stores with Sales Volume Over $500,000.)

Store Departments	Percent of Sales							Dollar Sales, 1938 as % of 1937
	Cumulative Markon a/	Markdowns at retail b/	Cash Discounts c/	Gross Margin d/	Number of Stock Turns e/	Returns f/	Profit or Loss (L)	
Total Store	39.0	7.2	2.8	36.0	3.8	9.0	0.3	93
Total Main Store	39.7	7.3	2.8	36.5	3.5	9.9	0.7	93
Infants' wear	38.6	5.9	3.8	38.2	4.1	8.8	3.3	96
Sportswear, knit apparel, etc.	38.8	11.7	5.2	35.6	5.5	16.2	1.7L	96
Blouses and skirts	38.3	10.0	5.4	36.9	6.9	20.0	0.1	105
Men's furnishings	39.0	4.9	2.3	37.6	3.6	5.4	3.7	95
Boys' wear	38.4	6.8	3.0	35.6	2.8	7.9	2.2L	91
Girls' wear	37.7	9.3	5.1	36.0	4.8	13.5	2.0L	93
Women's and Misses' dresses	40.5	17.3	5.6	33.3	7.1	15.4	4.0L	90
Knit underwear	40.3	4.6	1.4	38.8	3.7	6.8	4.2	90
Total Basement Store	35.7	6.6	3.3	33.7	5.0	6.7	0.3L	95
Girls' and Infants' wear	35.7	6.8	4.9	35.5	5.7	7.3	0.5	97
Blouses, skirts and sportswear	35.0	7.9	5.4	34.3	7.9	10.0	0.9L	100

Source: Controller's Congress, National Retail Dry Goods Associations, 1938 Departmental Merchandising and Operating Results of Department and Specialty Stores, Table 7.

a/ Retail price less wholesale price paid expressed as a percent of the retail price, and cumulated as a percent of sales.
b/ Retail price reductions as a percent of sales.
c/ Cash discounts on wholesale price, as a percent of sales.
d/ Retail sales less total merchandise costs as a percentage of retail sales.
e/ Total annual sales divided by the average stock (number and not as a percent of sales).
f/ Value of merchandise returned as a percentage of gross sales.

apparel fields is undoubtedly a significant influence. Although no data on merchandising results are available for chain stores, it is possible that such data might reveal a very different picture.

3. Competitive economics

The keenly competitive nature of this industry already has been indicated in the discussion of such factors as the shifts in number of firms from year to year, the apparent increase in number of contract establishments [1], technological improvements [2], productivity [3], and frequent financial instability [4]. The following discussion throws further light on competitive aspects from the standpoint of demand, supply, and interaction between the two.

a. Demand factors

(1) Trends in consumption

The foregoing discussion of the production of knitted outerwear[5] is largely applicable to any examination of trends in consumption. Although no data are available on actual shipments, these are believed to follow production trends rather closely. Style influences induce hand-to-mouth buying so that manufacturers have little incentive for building up sizeable inventories. Dun & Bradstreet studies for the years 1931 through 1937 reveal that among knitted outerwear firms examined [7], annual inventory during this period averaged only one-twelfth of the average value of annual net sales.[8]

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[1] See section on Size and Scale (B-1-a, and b.)

[2] See section on Technology (B-1-e.)

[3] See section on Labor Productivity (B-1-f.(4)).

[4] See section on Financial Organization (B-1-g.)

[5] See section on Size (B-1-a.)

[6] Roy A. Foulke, Behind the Scenes of Business, Signs of the Times, and They Said it With Inventories, Dun & Bradstreet, published respectively in 1937, 1938, 1939.

[7] Number of firms reporting ranged between 74 and 106 for the respective years.

[8] This may be compared to hosiery, where inventory for firms reporting averaged more than one-eighth of annual net sales. The ratio for knitted outerwear was in fact lower than for all industries reported except for production of women's dresses and suits, handbags, children's clothing and some of the perishable food products. Studies covered 60 lines of business activity in 1931, 63 in 1932-1936, and 72 in 1937.

In 1937, the most recent year for which data are available, the total value of production was considerably below that for 1929.[1] However, the total volume of production has been relatively maintained. Thus in 1937, the quantity of sweaters produced and, presumably, consumed was 98 percent as large as in 1929, while quantity of production was greater in 1937 than in 1929 in the cases of bathing suits, dresses and suits, headwear, and apparently also in the case of infants' wear.[2] Only in the case of neckties, a product of negligible importance, had production declined seriously, reflecting a shift in consumer demand to the woven product.

(2) Style trends

Fluctuations in production of the various outerwear products are mainly indicative of fashion trends veering toward or away from knitted garments as opposed to substitute apparel. The increasing complexity in design of garments including improved tailoring, variations in stitch and use of novelty yarns, has done much to sustain consumer demand.

(3) Elasticity of demand

The effects of prices on consumption, namely, the elasticity of consumer demand, cannot accurately be determined in view of the inadequacy of both wholesale and retail price data. On the whole it may be concluded that style factors influence demand more strongly than does price in this industry, despite the fact that lower priced merchandise appears to account for a greater part of total volume than in earlier years. A comparison of the quantity of goods produced and the average wholesale value reveals, for example, that the index of sweater production rose from 91 percent of the 1929 level in 1935 to 98 percent in 1937, yet average wholesale value remained almost unchanged. The quantity of bathing suit production rose in that interval from less than 97 percent to over 118 percent of the 1929 level, yet average wholesale value fell but slightly. The production of dresses and suits dropped sharply from 393 percent of the 1929 level in 1935 to 174 percent in 1937. This decline was due entirely to a style shift, inasmuch as the average wholesale value of the dresses and suits was almost identical in those two years. Again, neckwear production fell from 230 percent of 1929 in 1935 to 95 percent in 1937, while average wholesale value also fell.

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[1] See Table 6 above.
[2] Infants' wear quantity data not available prior to 1937, but value in that year was 20 percent above 1929.

In other words, stability of average price during these periods did not appear to retard increases or decreases in demand; while a lowering of average price in the case of neckwear did not prevent considerable diminution in demand. These data do not provide conclusive evidence, but they indicate a relative inelasticity of demand as related to price, in contrast to the important influences on demand exerted by style trends.

b. Supply factors

(1) Ease of setting up in business

A major factor accounting for intense competition is that small new firms can enter the industry with very little capital investment. Earlier sections of this report dealing with technology and financial organization emphasized the availability of second-hand machinery at low prices and also the availability of easy credit from yarn jobbers, contract employers, factors, and machine companies.

In consequence, a former mechanic, knitter, or other enterprising individual can begin independent operations as a contractor or even as a regular manufacturer with little initial capital. The necessary investment would of course depend upon the type of production undertaken.

It has been estimated that a man could obtain three or four second hand power machines, a few sewing machines, and rent space to set up as a regular manufacturer for an initial investment of between $1200 and $2000; and with three or four machines, could set up business as a contractor at a cost of only $500 to $1000.[1] Credit facilities would be sufficient to carry him through current production. Either a contractor or a regular manufacturer can purchase machines on the installment plan, covered by a chattel mortgage, on which immediate cash payment amounts to only $50 or $100 on new power machines.[2] Contractors are provided with yarn, on consignment from contract employers, while regular manufacturers are offered ample credit for these materials by yarn-jobbers. Rental on floor space of from 2500 to 3500 square feet ranges from $900 to $1500 annually in New York and much less in smaller centers, while very small manufacturers merely install the plant in their own homes, their families supplying the necessary labor. Otherwise, contract employers usually advance money for payrolls and other operating expenses while regular manufacturers, seeking to operate on a more ambitious scale, are understood to require a revolving credit of about $5000 to cover current financial needs on a business with annual sales volume of $35,000 or more.

The credit position, particularly of the small firms, would of necessity be precarious, and new firms are in general susceptible to early failure.

Nevertheless easy credit lures a number into the industry even in unfavorable years. No complete record of fly-by-night firms exists, although they appear to be opening and closing with considerable frequency, particularly in the New York area. Such firms, by adding to the sources of supply, offer severe price competition to longer established and more stable concerns and diminish their share of business volume.

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[1] Based on estimates by the National Knitted Outerwear Association and by Mr. Sidney Worms, Franklin Knitting Mills Inc., July 19, and August 1, 1939.

[2] Memorandum of Mr. Sidney Worms, *op. cit.*

(2) Brand advertising

Advertising and selling under manufacturers' brands is important only in the case of bathing suits, accounting for 40 to 50 percent of sales, and to a lesser extent in the case of sweaters, accounting for 15 to 20 percent of sales.[1] Brand selling of other products is either negligible or non-existent. Such branded merchandise usually is relatively high priced and has distinctive characteristics. For the most part, branded goods are produced by a few large concerns who gain some competitive advantage thereby. These goods are generally sold to independent retailers and their importance has increased slightly by reason of the pronounced trend towards selling direct to retailers rather than through wholesalers. However, the rising proportion of sales to chain stores, usually distributing lower-priced unbranded merchandise, acts as a retarding influence, so that no pronounced movement toward more extensive selling of branded goods can be anticipated in the near future.

(3) Bargaining power of firms

This industry mainly composed of small and highly competitive firms, is necessarily at a disadvantage in bargaining with either its sources of yarn supply or its outlets for distribution of finished garments.

The manufacturer, buying yarn direct from the spinner, finds prices influenced primarily by the world commodity market prices for the raw fiber of which the yarn is composed. Since the cost of raw materials represents the greatest part of the yarn cost, the knitted outerwear manufacturer has little opportunity to exert pressure on yarn price. On the other hand, if he buys yarn from wool-yarn jobbers, as is most frequently the case, he is dependent upon them for credit as well, and his bargaining position is further diminished.[1]

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[1] National Knitted Outerwear Association, op. cit.

At the same time, the knitted outerwear manufacturer is generally producing for a buyer's market. Large buying offices and retailing units such as chain stores are able to exert considerable downward pressure on price by reason of competition for sizeable orders. Moreover, style factors and purchasing methods generally compel him to produce for specific order rather than laying up large inventories. This condition weakens further his position as compared to the buyer's. These influences result in the relative inflexibility of knitted outerwear prices in comparison to yarn prices, as noted in an earlier section.

(4) Excess capacity

No complete data have been collected on use of capacity in this industry, but there are many indications that excess capacity has existed for several years, thus aggravating competition in the industry.

A count of machines reported to Davison's Knit Goods Trade was made for the years 1935 and 1938 as shown in Table 41. This offers only an approximate indication of capacity because of the many different types used, having varying productive capacity.

An examination of this Table reveals that the only knitting machines which can definitely be allocated to outerwear production are

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[1] National Knitted Outerwear Association, *op. cit.*

Table 41.— Knitted Outerwear Industry: Knitting Machines Reported, 1935 and 1938

Plants Producing	1935				1938			
	Plants		Number of Knitting Machines		Plants		Number of Knitting Machines	
	Total	Number Reporting Knitting Machines	Total Reported	Number per Firm Reporting Machines a/	Total	Number Reporting Knitting Machines	Total Reported	Number per Firm Reporting Machines
Outerwear only	656	622	19,792	31.8	591	540	16,075	29.8
Outerwear and hosiery b/	55	51	4,355	85.4	39	33	4,586	139.0
Outerwear and underwear	105	101	8,632	85.5	144	127	12,282	96.7
Outerwear, hosiery and underwear b/	41	40	3,184	79.6	45	45	4,957	110.2
Outerwear and miscellaneous	c/	c/	c/	c/	4	4	474	118.5
TOTAL	857	814	35,913	44.1	823	749	38,374	51.2

Source: 1935: N.R.A. Work Materials No. 80, March 1936, Table III, p. 12; data compiled from Davison's Knit Goods Trade, 1935 edition.

1938: Data compiled from Davison's Knit Goods Trade, 1938 edition.

a/ Computed
b/ Producers of knitcloth for sale are included with underwear.
c/ Not separately classified to show those also producing outerwear.

those reported by mills manufacturing outerwear exclusively. The decline in number of firms in 1938 accounts at least in part for the drop in machines from 19,792 to 16,075. However, it is significant to note that the number of machines per establishment reporting fell slightly from 31.8 to 29.8 during the years, 1935 to 1938, thus indicating some reduction of capacity in plants producing outerwear exclusively. On the other hand, the average number of machines per establishment rose during those years from 85.5 to 96.7 for producers of outerwear and underwear; from 85.4 to 139.0 machines for producers of outerwear and hosiery; and from 79.6 to 110.2 machines for producers of all three classes of knitwear. Moreover the average for all types of outerwear firms listed rose from 44.1 to 51.2 machines per establishment. It is therefore possible that the number of knitting machines used for outerwear has increased rather than declined between 1935 and 1938, by reason of the greater number of plants reporting production of outerwear in combination with other knit-goods products.

Although no comparable data are available for 1935, it may be noted that 37,235 sewing machines were reported in 1938 by plants producing outerwear or outerwear and other knit-goods, an average of 56.8 machines per establishment.1/

As was noted earlier, the market has been and continues to be flooded with second-hand machinery, selling at much less than new machine prices. This in turn contributes to the prevalence of fly-by-night firms, as previously described, which threaten the stability and even existence of longer-established plants.

The Department of Commerce machine study covering Philadelphia in 1928 and covering Cleveland in 1929 showed that in these comparatively

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1/ Compiled from Davison's Knit Goods Trade, 1938. Of 823 firms listed, 655 or 79.6 percent reported sewing machines.

good years, knitting equipment was used on the average at 58 and 60 percent of full operating time in the two cities respectively. The corresponding average for New York City in 1930 was 49 percent.[1]

As is to be expected, the percentage of full operating time varies considerably according to type of machine. A spot study of "highest potential use" of capacity was made by the Knitted Outerwear Code Authority for the months of May through August, 1934. Data were received from a total of 488 manufacturers, as shown in Table 42.

Table 42. -- Knitted Outerwear Industry: Use of Capacity by Type of Machine, May - August, 1934

Type of Machine	Percent "highest potential use"[a]
Link-and-Link - Power	62.6%
Flat - Power	45.3
Circular Rib	45.2
Link-and-Link - Hand	42.8
Raschel	40.6
Circular Jersey	38.4
Spring Needle	33.8
Flat - Hand	28.8

Source: N.R.A. Work Materials No. 80, op. cit p. 230.

[a] Represents mill averages not weighted by number of machines in each mill.

Since these percentages were not weighted by the number of machines in place, no satisfactory average for all types can be derived. Moreover, as this is a record of "highest potential use" for the months cited, actual use was undoubtedly somewhat lower.

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[1] *Knitted Outerwear Machinery in New York City*, op. cit., p. 4.

Style changes greatly influence the intensiveness with which particular types of machines are used at any given time. Style changes also prevent the scrapping of many machines because of the possibility that they may be usable in the future, when the wheel of fashion turns again. Although such style factors render any measure of excess capacity difficult, they account only in part for the low use of capacity evidenced above. The failure to scrap obsolescent machines when superior equipment is available, and the extensive purchase of second-hand machines contribute to an important degree to the condition of over-capacity and frequently also to inefficient methods of production.

(5) Substitute products

At various points throughout this report, mention has been made of the competition for consumer preference existing between knitted outerwear producers and those of woven or other types of apparel. Most knitted outerwear garments compete with substitute products that are interchangeable in use. Indeed much of the recession claimed by the industry during the last two or three years is due to the inroads made by such substitute goods, a trend which may or may not be short-lived.

This condition has been noteworthy recently in the bathing suit field, where the knitted suit has been considerably supplanted by woven garments. The shift has been most pronounced for women's bathing suits, although it has affected men's suits as well. Moreover, the style trend for men's and boys' has turned to swim trunks rather than complete suits, leaving manufacturers to production of the trunks alone.

Again, jackets made of woven fabrics or leather have displaced some of the demand for men's and boys' sweaters. This trend is being combatted by the insertion of suede or colorful woven fabric backs or other parts into knitted sweater jackets.

In the case of women's knitted dresses and suits, the accelerated demand that developed between 1931 and 1935 fell off considerably by 1937 and appears not to have been regained. In consequence, manufacturers who formerly concentrated on producing dresses or knitted sweater and skirt combinations are now confining themselves more to the production of sweaters, worn with woven skirts or suits.[1] Less important declines have been noted for knitted as against other types of neckwear and headwear, while knitted infants' wear appears to be enjoying increased popularity and new products such as ski suits have recently entered the field.

However, these risks are inherent in a style industry, wherein competition is intensified during periods of adverse style trends while a turn in fashion may lead to sudden revival. Such shifts in consumer preference appear to be broad changes which are influenced very little by the comparative prices of the products of this industry and of substitute products.

(6) Foreign trade

Foreign trade does not appear to be of great significance to this industry since both imports and exports represent but a small fraction of domestic production. In 1937 the value of imports for consumption amounted to approximately $2,000,000 [2] or less than two percent of the value of domestic output of nearly $106,000,000.[3] Exports were even smaller, and aggragated less than $871,000 in that year, as shown in Table 43.

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[1] Information on substitute products from National Knitted Outerwear Association, op. cit.

[2] Computed from data compiled by U. S. Bureau of Foreign and Domestic Commerce, Foreign Commerce and Navigation of the United States, 1937.

[3] Census of Manufactures, 1937.

This table reveals further that exports of silk knitted outerwear were of negligible value. The value of rayon exports, while small, increased rather considerably from $224,000 to $563,000 between 1936 and 1938. [1] Exports of wool and of cotton knitted outerwear in 1938 were valued at not quite $524,000, or considerably less than in 1929. Together these accounted for but slightly more than 27 percent of 1929 export value. Nevertheless, a steady increase in value of knitted outerwear exports has taken place since the low point in 1933. This has been particularly true for wool bathing suits and cotton outerwear. The value of other wool outerwear exported declined somewhat since 1936.

Table 43. -- Knitted Outerwear Industry: Value of Domestic Exports of Cotton and Wool Knitted Outerwear a/, 1929-1938

Year	Wool		Cotton	Cotton and Wool Total	
	Bathing Suits	Others	Sweaters, shawls, and other outerwear.	Value	Index (1929 = 100)
1929	$1,094,743	$398,796	$419,844	$1,913,383	100.0
1930	1,253,176	201,686	202,775	1,657,637	86.6
1931	779,870	139,427	101,812	1,021,109	53.4
1932	96,608	86,138	51,569	234,315	12.2
1933	58,671	114,075	46,749	219,495	11.5
1934	66,886	101,371	62,551	230,808	12.1
1935	94,022	130,106	78,296	302,424	15.8
1936	227,452	153,913	109,808	491,173	25.7
1937	259,928	127,765	136,280	523,973	27.4
1938 b/	245,040	112,567	166,383	523,990	27.4

Source: Compiled from data of the United States Bureau of Foreign and Domestic Commerce.

a/ Exports of other types of knitted outerwear were as follows:
Rayon (skirts, blouses, and dresses)
1936 - $223,880
1937 - 313,129
1938 - 562,658
Silk (skirts, blouses and dresses)
1936 - $ 28,329
1937 - 33,603
These classes of data are not separately reported prior to 1936.
Silk knit outerwear is not separately reported in 1938.

b/ Preliminary.

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[1] Skirts, blouses, and dresses. While these are classified as knitted outerwear by the Bureau of Foreign and Domestic Commerce, they do not come within the scope of this industry unless produced in integrated plants as described in the definition.

Information on the value of imports for consumption is somewhat more detailed. Data on the most important classification, namely wool knit outerwear, is shown in Table 44. The total value of wool knit outerwear imports in 1937 was $1,856,829 or over 90 percent of the value of all knit outerwear imports which amounted to about $2,000,000. Since 1931 wool imports have fluctuated considerably. From 1931 to 1934 a decline of 46.7 percent occurred, followed by a rise to 89 percent of the 1931 level in 1937. The subsequent decline left the 1938 total but slightly higher than the low point in 1934. In the six months following the tariff reductions provided in the United Kingdom Agreement (effective January 1, 1939), the value of total imports of woolen outerwear increased somewhat over the corresponding period of 1938.

The long-range decline in total wool outerwear imports can be accounted for almost entirely by reductions in imports of hats, berets and similar articles, from a value of $1,171,385 in 1931 to only $85,331 in 1938. Imports of "other wool outerwear", at present the most important classification, declined between 1931 and 1933 but by 1937 had risen to 178 percent of the 1931 level. The 1938 imports, in spite of a sharp drop, were still 10 percent above 1931. Infants' knit outerwear 1/ and embroidered outerwear showed much the same movement.

Only since 1937 were the imports of cotton knit outerwear reported separately from the imports of polo shirts and "other gloves." The value of imports for consumption declined from $107,635 in 1937 to $74,759 in 1938 and in the first six months of 1939 dropped to $37,112 as compared with $42,872 in the first six months of 1938. 2/

1/ Imports of infants' knit outerwear in 1937 were probably less than 3 percent of the value of the domestic output, reported by the Census to be $10,080,400.

2/ U.S. Bureau of Foreign and Domestic Commerce.

Table 44. -- Knitted Outerwear Industry: Value of Imports for Consumption, for Classifications of Wool Outerwear a/, 1931 to June, 1939

Year	Total wool outerwear	Hats, berets, etc.	Infants' wear valued over $2 per pound	Embroidered Outerwear	Other wool outerwear
1931	$2,079,519	$1,171,385	b/	$47,059	$ 861,075
1932	1,418,607	827,388	$21,409 c/	32,358	537,452
1933	1,463,052	743,104	46,185	23,607	650,156
1934	1,107,826	397,257	36,536	21,395	652,638
1935	1,195,042	259,472	16,527	25,801	893,242
1936	1,502,880	231,474	30,454	44,331	1,196,621
1937	1,856,829	166,417	80,445	80,405	1,529,562
1938 d/	1,145,954	85,331	67,759	50,221	942,643
Jan. to June					
1938 d/	369,804	33,641	14,846	16,085	305,232
1939 d/	415,560	31,873	24,084	12,509	347,094
Index (1933 = 100)					
1931	142.1	157.6	b/	199.3	132.4
1932	97.0	111.3	c/	137.1	82.7
1933	100.0	100.0	100.0	100.0	100.0
1934	75.7	53.5	79.1	90.6	100.4
1935	81.7	34.9	35.8	109.3	137.4
1936	102.7	31.2	65.9	187.8	184.1
1937	126.9	22.4	174.2	340.6	235.3
1938 d/	78.3	11.5	146.7	212.7	145.0

Source: Compiled from data of the U.S. Bureau of Foreign and Domestic Commerce.

a/ Excluding hosiery, gloves, and polo shirts.

b/ Not separately reported.

c/ July 11 to Dec. 31. Prior to July 11, included with "other wool outerwear."

d/ Preliminary.

Imports of silk knitted outerwear are negligible. The total value imported declined from $95,115 in 1929 to $7,017 in 1933; fluctuated at about that level through 1937 and fell to $3,774 in 1938. [1]

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[1] U.S. Bureau of Foreign and Domestic Commerce.

Imports of viscose or cellophane hats and of other types of rayon knitted outerwear are also quite small. The value of such outerwear declined from $73,428 in 1931 to $10,905 in 1937 and $5,137 in 1938. [1]

Table 45 presents both quantity and value of wool knit outerwear imports, by country of origin. It reveals that since 1931, the United Kingdom, France and Czechoslovakia accounted for the bulk of domestic imports. Imports from France became less important than formerly, largely because of the reduced demand for knitted headwear in recent years. However, imports of other types of wool outerwear, obtained mainly from the United Kingdom, have increased considerably since 1931. These consist for the most part of relatively expensive men's and women's sportswear of distinctive types or qualities not produced extensively in the United States. The largest concessions granted in the United Kingdom agreement were on the higher value classes of wool outerwear which are largely non-competitive with domestic production. [2]

The principal sources of imports of other types are as follows: cotton from Japan, United Kingdom, and France; silk from the United Kingdom and France; rayon from Italy, Switzerland, Japan, France and Germany.

As shown in Table 46, duties on various types of knitted outerwear at present range from 44 cents per pound and 30 percent ad valorem to 90 percent ad valorem. There have been three series of changes since the duties were set in the Tariff Act of 1930. The first became effective in 1932 and involved certain reclassifications of infants' outerwear, lowering the ad valorem rates in some cases, raising them in

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[1] U.S. Bureau of Foreign and Domestic Commerce.

[2] U.S. Tariff Commission, Trade Agreement Between the United States and the United Kingdom Schedule 11 p. 86.

Table 45 -- Knitted or Crocheted Wool Outerwear a/, Imports For Consumption, by Country of Origin, 1931-1938.

Year	Countries of Origin				
	All Countries	United Kingdom	France	Czechoslovakia	Other
	Quantity (pounds) b/				
1931	894,531	112,723	625,525	27,207	129,076
1932	755,941	71,331	532,255	78,035	74,320
1933	752,775	88,941	516,917	63,739	83,178
1934	393,967	87,154	198,401	60,188	48,224
1935	416,252	123,325	92,605	97,237	103,085
1936	489,180	147,428	87,432	129,550	124,770
1937	450,961	179,450	63,052	80,967	127,492
1938 d/	267,409	117,181	42,025	57,726	50,477
	Value (in dollars) c/				
1931	2,079,519	485,175	1,083,050	41,722	469,572
1932	1,418,607	292,176	776,778	108,062	241,591
1933	1,463,052	456,101	731,510	72,143	203,298
1934	1,107,826	505,594	359,569	67,209	175,454
1935	1,195,042	680,828	179,818	107,945	226,451
1936	1,502,880	920,788	148,765	134,106	299,221
1937	1,856,829	1,215,972	123,451	78,856	438,550
1938 d/	1,145,954	807,713	87,040	54,586	196,615
	Value of Quantity (1931 = 100) b/				
1931	100.0	100.0	100.0	100.0	100.0
1932	84.5	63.3	85.1	286.8	57.6
1933	84.2	78.9	82.6	234.3	64.4
1934	44.0	77.3	31.7	221.2	37.4
1935	46.5	109.4	14.8	357.4	79.9
1936	54.7	130.8	14.0	476.2	96.7
1937	50.4	159.2	10.1	297.6	98.8
1938 d/	29.9	104.0	6.7	212.2	39.1
	Index of Value (1931 = 100) c/				
1931	100.0	100.0	100.0	100.0	100.0
1932	68.2	60.2	71.7	259.0	51.4
1933	70.4	94.0	67.5	172.9	43.3
1934	53.3	104.2	33.2	161.1	37.4
1935	57.5	140.3	16.6	258.7	48.2
1936	72.3	189.8	13.7	321.4	63.7
1937	89.3	250.6	11.4	189.0	93.4
1938 d/	55.1	166.5	8.0	130.8	41.9

Source: Compiled from data of the Bureau of Foreign and Domestic Commerce.

a/ Excluding gloves
b/ Excluding embroidered outerwear
c/ Including embroidered outerwear d/ Preliminary

others. Again, under the French agreement, effective in 1936, the ad valorem rates on wool hats and on cotton silk embroidered outerwear were lowered.

The last set of changes affected the most important category of imports; namely, wool knit outerwear other than hats and infants' wear. Under the United Kingdom agreement, effective January 1, 1939, tariffs on such articles valued at $2 per pound or more were lowered from 50 cents per pound and 50 percent ad valorem to 50 cents per pound and 40 or 30 percent ad valorem, depending upon the value. For further detail concerning existing rates and changes since 1930, reference should be made to Table 46.

In summary, neither exports nor imports are important when compared with domestic production. Moreover, the bulk of the imports are of high priced articles not made extensively in this country. Thus far, such reductions in tariff rates as have occurred since 1930 seem to have had little effect on imports, so that competition from abroad does not appear to constitute a serious problem to the industry.

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Table 46 -- Knitted Outerwear Industry: Import Duties by Type of Product and Basic Fiber

Products a/	Rate Under Tariff Act of 1930	Modified Rate	Effective Date and Basis of Change
Wool outerwear:			
Hats and similar articles not in part of wool felt valued at not over $2 per lb.	44¢ per lb. + 45% ad val. b/	44¢ per lb. + 30% ad val.	June 15, 1936; French Trade Agreement
Hats and similar articles value at over $2 per lb.	50¢ per lb. + 50% ad val.	No change	----
Infants' wear (except hats and similar articles) valued over $2 per lb.			
Made of Jersey knit in plain stitch on a circular machine	50¢ per lb. + 50% ad val.	50¢ per lb. + 25% ad val.	July 11, 1932, sec. 336c/ Jan. 1, 1939; United Kingdom Agreement
Other	50¢ per lb. + 50% ad val. 50¢ per lb. + 75% ad val.	50¢ per lb. + 75% ad val. 50¢ per lb. + 50% ad val.	July 11, 1932; sec. 336 Jan. 1, 1939; United Kingdom Agreement
Infants' hats and similar articles valued at over $2 per lb.			
Made of Jersey knit in plain stitch on a circular machine	50¢ per lb. + 50% ad val.	50¢ per lb. + 25% ad val.	July 11, 1932; sec. 336
Other	50¢ per lb. + 50% ad val.	50¢ per lb. + 75% ad val.	July 11, 1932; sec. 336
Articles not elsewhere stated valued not over $2 per lb.	44¢ per lb. + 45% ad val.	No change	----
Articles n.e.s. valued over $2 per lb. but not over $5 per lb.	50¢ per lb. + 50% ad val.	50¢ per lb. + 40% ad val.	Jan. 1, 1939; United Kingdom
Articles n.e.s. valued over $5 per lb.	50¢ per lb. + 50% ad val.	50¢ per lb. + 30% ad val.	Jan. 1, 1939; United Kingdom Agreement
Silk Outerwear			
Not embroidered or of lace	60% ad val.	No change	----
Rayon (or other synthetic textile) outerwear	45% per lb. + 65% ad val.	No change	----
Cotton Outerwear			
Not embroidered	45% ad val.	No change	----
Embroidered Outerwear of:			
Cotton and Silk	90% ad val.	75% ad val.	June 15, 1936; French Trade Agreement
Wool and Rayon	90% ad val.	Unchanged	----

Sources: U. S. Tariff Commission, Changes in Import Duties since the Passage of the Tariff Act of 1930, Jan. 1, 1939, pp. 106, 129.

U. S. Bureau of Foreign and Domestic Commerce, Statistical Classification of Imports into the United States, Jan. 1, 1939, pp. 83, 84, 88, 89 and 92.

a/ Excluding hosiery, gloves and polo shirts. Articles wholly or in chief value of material under which classified, finished or unfinished.

b/ Ad valorem - duty expressed as a percentage of the value.

c/ Section 336 of the Tariff Act of 1930 - the flexible tariff rate adjustment provision.

c. Interaction of demand and supply factors

(1) Mortality among firms

From the description of competitive conditions, it is evident that the industry tends somewhat toward over-expansion. Such factors as excess capacity arising in part from failure to scrap obsolete equipment, excessive use of credit, and the resultant ease with which new firms enter into production aggravate the intensity of competition in a market characterized by unstable demand.

In consequence, a fairly high incidence of plant mortality exists, particularly in general depression years or when style factors cause the demand for particular knitted outerwear products to shift rather abruptly in favor of substitute apparel. This is indicated by the approximate plant turnover data presented in Table 47. 1/

The nation-wide depression between 1929 and 1931 contributed to the failure of some 84 firms in 1931 alone. The total number of mills increased in 1932 with 37 new concerns reported, followed by failure of about 72 mills in 1933. Improved conditions during the N.R.A. year, 1935, caused a net increase of 82 firms and also encouraged some 49 new firms to enter the industry in 1936. The entrance of many firms into the industry during these two years was accompanied by 86 failures in 1936. Reduction of consumer demand, especially in the

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1/ The accuracy of these data depend, of course, upon the completeness with which Davison's Knit Goods Trade reports: (1) total number of firms, and (2) number of new firms. The reporting, particularly on new mills, may be questioned since in 1935, with a net increase of 82 mills over 1934, only 39 new mills were listed. However, the data for other years appear to be more consistent, although consolidations and similar changes in organization may affect the data slightly. Unfortunately, no other method of estimating plant mortality is available.

Table 47 -- Knitted Outerwear Industry: Plant Turnover, 1930 - 1938 a/

Year	Total number of mills	New Mills b/	Mills closed down c/	Net change from previous year
1930	925	20	19	+ 1
1931	857	16	84	- 68
1932	888	37	6	+ 31
1933	846	30	72	- 42
1934	841	36	41	- 5
1935	923	d/	d/	+ 82
1936	886	49	86	- 37
1937	880	38	44	- 6
1938	856	31	55	- 24

Source: Compiled from Davison's Knit Goods Trade, annual editions, 1929-1938.

a/ Data include a relatively small number of producers of miscellaneous knitgoods. A careful check for 1938 revealed 29 such establishments and 4 additional mills located in state penitentiaries. The number for earlier years is not known.

b/ Includes only new mills built or under construction. Does not include old mills enlarged.

c/ Derived by deducting yearly total (exclusive of new mills) from yearly total of preceding year.

d/ New mills appear to be under-reported in 1935, and therefore no plant turnover data can be derived.

women's dress and suit field, helps to account for failure of some 44 firms in 1937 and 55 in 1938, yet a substantial number of new mills were opened during this interval.

In effect, these data indicate that new firms and particularly the fly-by-night plants contribute heavily to a high mortality rate for the industry as a whole.

(2) Profitability

No satisfactory data are available on profit trends. An attempt to show various profit ratios for manufacturers and for wholesalers was made by Dun & Bradstreet for a large number of industries including knitted outerwear. However, data were obtained only for a limited number of concerns, and both the specific firms reporting and size of sample varied from year to year. These data are presented in Appendix Table G, but because of their serious limitations, it does not appear that definite conclusions can be drawn from them.

Moreover, in an industry composed primarily of small firms many of which are single proprietorships or partnerships, it is often impossible to differentiate between profits and returns to management. Therefore, in the cost questionnaire sent to knitted outerwear manufacturers by the Economic Section, the question on salaries and returns to executives or owners was combined with profits (or losses). Data covering the entire year, 1938, were received from 120 manufacturers, revealing that these combined items averaged 6.84 percent of net sales among the establishments reporting. 1/ The basic data obtained by the

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1/ Weighted. Firms grouped according to net sales were weighted by 1937 Census data on value of product for the same size groups in order to check the representativeness of the sample. The unweighted ratio was 6.6 percent.

cost survey are contained in Appendix A, Part II of this report, Tables vi, vii, and viii.

Table vi presents the ratios of salaries, returns, and profits or losses to net sales for all firms in the sample, grouped according to the amount of their net sales. It reveals that these combined items represent the highest ratio to net sales (19.7 percent) for smallest size firms, those reporting net sales in 1938 of under $20,000; and declines almost consistently for the larger concerns, to 4.9 percent for those reporting net sales of $1,000,000 or over in that year.

Of these 120 firms, 73 or 61.7 percent of the total, reported net profits during 1938, representing a slightly higher proportion (63.2 percent) of total net sales, as shown in Table vii. The average ratio of salaries, returns, and profits to net sales was 6.8 percent for all firms showing profits; and again the ratio was highest for the smallest firms, averaging 23.2 percent for those with net sales of under $20,000, and declining almost consistently for firms of larger size. The lowest ratio, 5.0 percent, was for firms with net sales of from $500,000 to $1,000,000 during 1938, while the ratio for the largest size group, those reporting net sales of over $1,000,000, was 5.9 percent.

The data on net losses for the 46 firms reporting a loss during 1938 are not conclusive, since manufacturers' determination of losses are influenced by varying accounting techniques and further are directly related to their allocations of salaries and returns to management. For example, of two firms with net sales of $100,000 and total operating costs of $90,000, one might allocate salaries or returns to management of $10,000 and show no loss, while the other might allocate $15,000 as salaries or returns and so report a net loss of $5,000 or 5 percent of net sales.

The net losses, as reported, are shown in Table viii (Appendix A.), and averaged 5.7 percent of the net sales of those firms. 1/ The average was influenced by the high loss ratio of 22.1 percent reported by those of the smallest size firms which suffered loss. It so appears that firms in this size group range from unusually high deficits to exceptionally high profits as compared to larger firms. These data provide some indication of the speculative character of very small-scale enterprise in this industry which was further evidenced by the large number of fly-by-night firms and by the high incidence of plant turnover previously described. Losses reported by concerns with net sales above $20,000 varied considerably in the different size groups, and showed no correlation between ratio of loss to net sales and size of firm. However, a sample of only 46 establishments is too small to warrant definite conclusions.

In viewing these data, it must be recalled that the industry regards 1938 as an unsatisfactory rather than as a representative year largely by reason of a recent and perhaps temporary shift in consumer demand favoring woven apparel in the dress and suit and in the bathing suit fields. Nevertheless it may be stated that profits are reduced and often jeopardized by keenly competitive conditions.

1/ Unweighted average.

(3) Degree of competition

In brief, this industry possesses numerous characteristics that occasion severe competition, including over-capacity, under-capitalization, extensive use of credit, a large proportion of fly-by-night firms, and availability of substitute products. To a slight extent, it has also been subject to competition from foreign countries, but this has been further diminished by protective tariffs and by unsettled conditions abroad. Such competitive factors have contributed to frequent use of various unfair trade practices, and a downward pressure on wages, but these conditions appear to have been improved by the stabilizing influences of the N.R.A. Code, which was regarded with high favor by the great majority of manufacturers. The industry has given credit to the Code for much of the considerable progress noted during its existence, particularly in 1935. 1/

1/ N.R.A. Work Materials No. 80, *op. cit.*, pp. 307-312.

C. EXPERIENCE UNDER N.R.A. WITH WAGE RATE INCREASES IN TERMS OF COSTS, PRICES, AND EMPLOYMENT

The N.R.A. Code for the Knitted Outerwear Industry was approved on December 18, 1933, [1] and was terminated by the Schecter Decision of May 27, 1935. [2]

In effect, the wage and hour regulations of the Code provided for a 40-hour week and a minimum wage of 35 cents per hour, excluding learners. Slightly different hours provisions applied to a few specified indirect labor occupations such as engineers, watchmen, etc., and to manufacturers electing to operate all machinery on one shift rather than the normal two shift basis. [3] Further, the 35-cent hourly minimum applied to the northern section of the industry, and a 32½-cent rate was set for specified states in the South. [4] However, this regional differential was of little general importance since only 18 plants, less than two percent of the total, were located in those southern states in 1935, and only 10 additional plants were reported in that area in 1938. [5]

The effects of N.R.A. on earnings and hours may be seen in Table 48, which discloses the average hourly earnings, weekly hours

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[1] N.R.A. Work Materials No. 80, p. 282. Code approved subject to a stay to determine whether manufacturers of infants' and children's wear should be included, N.R.A. Administrative Order No. 164-5 of March 16, 1934 terminated the stay and included this group under the Code's jurisdiction.

[2] Ibid., p. 214.

[3] Article III of the Code, and as amended, September 25, 1934.

[4] Virginia, Tennessee, Kentucky, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Arkansas, Louisiana, Texas, and Oklahoma.

[5] Compiled from Davison's Knit Goods Trade, as shown in Table15 above.

Table 48 - Knitted Outerwear Industry: Trends in Average Hourly Earnings, Weekly Hours, and Weekly Earnings by Months in Selected Years, 1933-1938 and January to June, 1939.[a]

Month	1933	1934	1935	1936	1937	1938	1939
Average Hourly Earnings [b]							
Annual Average	$0.334	$0.443	$0.455	$0.446	$0.463	$0.464	$0.465
January	.235	.440	.450	.453	.455	.512	.475
February	.255	.435	.457	.448	.451	.484	.472
March	.277	.437	.457	.456	.448	.492	.459
April	.263	.427	.463	.447	.458	.473	.461
May	.280	.437	.463	.456	.466	.466	.461
June	.287	.445	.465	.460	.467	.460	.461
July	.272	.436	.459	.443	.467	.439	
August	.391	.447	.457	.442	.468	.446	
September	.419	.451	.461	.444	.467	.448	
October	.416	.445	.450	.441	.470	.454	
November	.407	.455	.450	.435	.472	.459	
December	.409	.456	.456	.438	.475	.467	
Average Weekly Hours [b]							
Annual Average	39.9	34.4	36.3	37.8	37.1	35.6	36.4
January	44.8	33.1	35.1	36.7	37.3	30.4	35.4
February	42.9	35.0	34.9	36.9	37.7	34.6	37.2
March	38.7	34.7	34.4	36.6	38.7	33.6	36.8
April	37.8	36.4	33.2	37.2	39.2	32.8	35.5
May	42.6	35.6	33.5	36.2	37.7	34.5	37.0
June	46.8	32.9	34.9	36.0	37.7	34.4	36.7
July	47.3	34.4	34.1	36.2	36.0	35.4	
August	36.8	34.6	37.4	39.5	37.0	37.1	
September	36.1	32.2	39.9	37.8	34.5	38.2	
October	36.5	36.5	40.2	41.1	38.6	39.2	
November	34.5	33.4	37.5	39.7	34.4	36.6	
December	37.3	33.1	36.5	38.9	35.0	38.0	
Average Weekly Earnings							
Annual Average	$14.12	$15.64	$16.78	$16.99	$17.33	$16.77	$16.96
January	13.83	15.24	16.24	16.85	17.01	15.70	16.89
February	13.86	16.22	16.73	16.65	17.29	17.22	17.72
March	11.99	15.65	16.14	16.86	17.47	16.81	16.89
April	11.90	15.78	15.76	16.66	17.91	15.78	16.32
May	13.38	15.55	15.51	16.39	17.69	16.34	16.98
June	13.48	14.81	16.21	16.58	17.67	16.17	16.96
July	13.21	15.08	15.98	16.26	16.93	15.65	
August	14.94	15.49	17.29	17.33	17.63	16.89	
September	15.54	15.38	18.21	16.99	16.25	17.27	
October	15.84	16.91	18.24	18.46	18.40	17.91	
November	14.61	15.70	16.99	17.57	16.44	16.81	
December	15.52	15.67	16.73	17.12	16.91	17.87	

Source: U.S. Bureau of Labor Statistics, Division of Employment and Payrolls, (unpublished data).

[a] Includes producers of knitted gloves and mittens. Since only 15 such establishments were reported by the 1937 Census, they would not disturb the essential accuracy of these data.

[b] Represents a smaller sample than for weekly earnings.

and weekly earnings by months from 1933 through June 1939 and thus covers the period before, during, and subsequent to the Code.

A distinct shift took place between July and August 1933, when average hourly earnings rose from 27.2 to 39.1 cents; average hours fell from 47.3 to 36.8 per week; and average weekly earnings increased from $13.21 to $14.94. This marked improvement, several months before final approval of the Code, was due largely to the President's Re-Employment Agreement which became effective on August 1, 1933 and set an absolute minimum of 30 cents per hour for factory workers. [1] The increase in August 1933 has also been attributed to early compliance on the part of many manufacturers with the 35-cent Code minimum, before official confirmation was made. [2] This is somewhat substantiated by the fact that the Code was submitted to N.R.A. in July, 1933 together with a statement of the National Knitted Outerwear Association's approval. [3]

Upon formal approval of the Code in December 1933, average hourly earnings rose to 44.0 cents in January 1934, and thereafter reflected a gradual and intermittent rise to 46.3 cents in April and May, 1935, the last two months of N.R.A. This average was almost double that which prevailed in early 1933. In subsequent years, the Code levels have either been maintained or surpassed, except for a slight drop during 1936 and between July and October, 1938. Weekly hours averaged 34.4 in 1934 but fluctuated upward during the latter half of 1935 and through 1936 after termination of the Code, declining somewhat by 1938 and rising slightly over comparable months during the first half of 1939. Average weekly earnings have been almost consistently above Code levels during the succeeding months and years. It may be concluded that since the Code the industry has been fairly successful in maintaining average hourly and weekly rates on a voluntary basis for the majority of its employees. Minimum rates, however, were not sustained and data reveal that in August and September 1938, 32.7 percent of employees were receiving less than thirty-five cents per hour. [1] Although weekly hours have shown a tendency to rise, the average work week has been kept substantially shorter than before the Code.

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[1] However, for factory workers receiving 40 cents per hour or more on July 15, 1929, a 40 cent minimum was required. The wage for non-factory employees, such as clerical workers, was set at from $14.00 to $15.00 weekly, depending on the size of city in which they were employed.

[2] N.R.A. Work Materials No. 80, p. 214.

[3] N.R.A. Files, Letter of Mr. Harold L. Lhowe to the N.R.A. Administrator, July 26, 1933.

The contract system of production, which has become increasingly prevalent in recent years, presented a distinct problem during N.R.A. which deserves mention. It was found that the financial instability of contractors made them very susceptible to pressure from contract-employers with respect to prices for contract services. Such pressures not only occasioned a severe downward spiral of contract prices, but caused contractors in turn to lower wages. To meet this issue the Code provided that members of the industry who made use of contractors should pay such rates to the contractor as would permit payment of at least the Code wages to his employees. [2] Experience proved that this provision was inadequate, since those contract-employers who themselves did no manufacturing were not bound, and in general further regulations were required to provide a basis for enforcement.[1] Amendment No. 1 of the Code, approved June 2, 1934, provided that during an emergency due to destructive price cutting, the Code Authority could set minimum prices for contract services. In consequence, the Code Authority made a determination of the "lowest reasonable cost" of contract services in order to insure conformity with wage and hour provisions of the Code. However, this was specified only for contractors of infants' and children's wear, with the result that experiment with the contract problem was confined to one group alone.[2] Comparable regulations for contract production on other types of knitted outerwear were set up early in 1935, and approved on May 11, 1935. However, termination of N.R.A. later in that month prevented placing the regulations into operation.[3]

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[1] Bureau of Labor Statistics Survey of August and September 1938. Discussed in detail in Part II of this report.

[2] N.R.A., Code of Fair Competition for the Knitted Outerwear Industry, Article VII.

A similar condition of downward pressure on contract prices and so indirectly on wages is said to exist at the present time.[4] Unfortunately no current data are available on wages paid by contract establishments to indicate how extensive this situation may be. However, the maintenance of Code levels of average earnings in the succeeding years provides some evidence that the pressure on wages in contract mills is not as serious as prior to N.R.A.

In general, the Code period was very favorable to the industry. Employment showed no tendency to fall in consequence of the higher earnings, but rather increased appreciably. In fact, as is shown in Appendix Table D, employment in 1935 was substantially greater than in any year after the 1923 peak, and in both 1934 and 1935 was considerably above the 1929 level.

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[1] N.R.A. Work Materials No. 80, op. cit., p. 289.
[2] Ibid. Regulations became effective on September 18, 1934.
[3] Ibid., p. 293.
[4] Mr. Harold L. Lhowe, National Knitted Outerwear Association, Interview of October 4, 1939.

Data to show the effects of N.R.A. on costs and prices are very inadequate. It can merely be noted that wholesale prices, shown for sweaters on Table 34 above remained almost constant during 1934 and 1935. The men's pull-over sweaters price remained entirely stable, while the men's slip-on or button sweaters fluctuated but slightly. In fact, the price rises that did occur took place in 1936 and 1937, well after the termination of N.R.A. On the other hand, higher wages necessarily involved some increases in costs, and to the extent that prices did not rise for similar garments, additions to cost appear to have been compensated for by slight changes in specifications. In any event, the wholehearted indorsement of the Code generally proffered by the great majority of manufacturers 1/ together with the voluntary maintenance of average hourly and weekly earnings in subsequent years constitute the strongest proof that the additional costs did not unduly burden the industry.

1/ N.R.A. Work Materials No. 80, p. 309.

APPENDIX TABLES

Appendix Table A — Knitted Outerwear Industry: Percentage Distribution of Plants by Number of Knitting Machines in Place, and Percentage of Total Machines in Each Classification

Number of Knitting Machines	Total Plants				Plants producing only outerwear				Plants producing outerwear and other knit goods			
	% Plants		% Machines		% Plants		% Machines		% Plants		% Machines	
	simple	cumulative	simple	cumulative	simple	cumulative	simple	cumulative	simple	cumulative	simple	cumulative
Under 5	2.7	2.7	0.2	0.2	3.7	3.7	0.4	0.4	–	–	–	–
5 and under 10	15.0	17.7	1.9	2.1	18.0	21.7	3.9	4.3	7.2	7.2	0.5	0.5
10 " " 25	39.2	56.9	12.3	14.4	47.4	69.1	24.7	29.0	18.2	25.4	2.8	3.3
25 " " 50	16.9	73.8	11.5	25.9	14.8	83.9	16.9	45.9	22.4	47.8	7.5	10.8
50 " " 100	13.6	87.4	18.7	44.6	10.7	94.6	24.7	70.6	21.1	68.9	14.1	24.9
100 " " 150	5.3	92.7	12.2	56.8	3.5	98.1	13.5	84.1	10.0	78.9	11.2	36.1
150 " " 200	2.0	94.7	6.4	63.2	0.7	98.8	4.0	88.1	5.3	84.2	8.3	44.4
200 " " 300	3.1	97.8	14.1	77.3	0.6	99.4	4.3	92.4	9.6	93.8	21.4	65.8
300 " " 400	0.7	98.5	4.1	81.4	0.2	99.6	1.9	94.3	1.9	95.7	5.7	71.5
400 " " 500	0.7	99.2	5.2	86.6	0.2	99.8	2.3	96.6	1.9	97.6	7.5	79.0
500 " " 1000	0.7	99.9	7.8	94.4	0.2	100.0	3.4	100.0	1.9	99.5	11.1	90.1
Over 1000	0.1	100.0	5.6	100.0	–	–	–	–	0.5	100.0	9.9	100.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Computed from compilation of data from Davison's Knit Goods Trade, 1938 edition.

Appendix Table B. -- Knitted Outerwear Industry: Purchase of Material as Yarns and in Raw State, 1929.

Materials	Pounds (000 omitted)	Percent of total raw materials
Raw Materials, Total	68,558	100.0
Yarns, Total	53,569	78.1
Total (Wool, Worsted and Mixtures)	33,723	49.2
Wool	5,565	8.1
Worsted	25,957	37.9
Wool & cotton mixed	1,632	2.4
Worsted & " "	568	0.8
Cotton yarn	16,930	24.7
Rayon "	2,422	3.5
Silk and other yarn	494	0.7
Raw State, Total	14,989	21.9
Wool a/	6,758	9.8
Cotton b/	7,997	11.8
Silk c/	234	0.3

Source: Census of Manufactures, 1929

a/ Includes Wool waste, noils, and recovered fiber
b/ Includes cotton waste
c/ Includes silk waste and noils

Appendix Table C -- Price Per Pound of 2/20 Worsted Yarn 1/4 Blood, by Months in Selected Years, 1929-1939.

	1929 ¢	1931 ¢	1933 ¢	1935 ¢	1936 ¢	1937 ¢	1938 ¢	1939 ¢
January	142.3	93.8	65.0	86.3	121.3	135.6	101.3	100.6
February	142.3	89.7	65.6	85.6	123.8	137.5	98.4	101.9
March	141.8	85.6	64.8	83.4	122.5	136.3	94.0	102.0
April	139.8	82.0	64.4	80.0	117.3	136.3	91.3	100.0
May	138.8	81.3	83.8	80.5	116.3	136.3	91.3	98.8
June	138.3	81.3	102.5	92.2	115.9	132.0	91.3	99.1
July	131.1	80.3	108.8	97.8	114.3	131.3	95.0	-
August	125.0	80.6	126.0	97.9	113.8	133.1	96.3	-
September	128.8	80.3	128.1	100.0	113.8	131.3	98.8	-
October	128.8	78.1	126.6	112.0	113.8	124.1	98.1	-
November	128.1	75.6	125.8	119.4	118.8	108.8	100.8	-
December	124.8	75.0	128.1	121.3	129.8	103.3	100.0	-
Yearly Average	134.1	82.0	99.1	96.4	118.4	128.8	96.4	100.4 b/
	Index (1929 = 100) a/							
January	106.1	69.9	48.5	64.3	90.4	101.1	75.5	74.8
February	106.1	66.9	48.9	63.8	92.3	102.5	73.4	76.0
March	105.7	63.8	48.3	62.2	91.3	101.6	70.1	76.1
April	104.2	61.1	48.0	59.6	87.4	101.6	68.0	74.6
May	103.4	60.6	62.4	60.0	86.7	101.6	68.0	73.6
June	103.1	60.6	76.4	68.7	86.4	98.4	68.0	73.8
July	97.7	59.8	81.1	72.9	85.2	97.9	70.8	-
August	93.2	60.1	93.9	73.0	84.8	99.3	71.8	-
September	96.0	60.6	95.5	74.6	84.8	97.9	73.6	-
October	96.0	58.2	94.4	83.5	84.8	92.5	73.2	-
November	95.5	56.4	93.8	89.0	88.5	81.1	75.1	-
December	93.0	55.9	95.5	90.4	96.7	77.0	74.6	-
Yearly Average	100.0	61.1	73.9	71.8	88.3	96.0	71.8	74.8 b/

Source: Compiled from weekly quotations by International Statistical Bureau, Inc.

a/ Computed.

b/ Six month average.

Appendix Table D.— Knitted Outerwear Industry: Indexes of Employment and Payrolls, by Months for Selected Years, 1923 - 1938, and January - June, 1939 a/

(1923 - 1925 = 100)

Month	1923	1925	1927	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
EMPLOYMENT														
Annual Average	121.4	81.9	72.2	84.8	78.2	76.5	74.8	78.7	88.4	103.7	96.0	85.8	67.4	67.6 b/
January	115.5	82.6	65.5	69.9	75.6	65.6	72.2	77.2	73.5	97.8	97.2	94.4	58.5	61.0
February	118.7	85.7	70.0	78.6	82.2	71.0	73.9	71.1	86.3	101.6	99.2	97.3	62.7	68.1
March	120.5	84.7	70.5	85.0	80.6	70.6	76.3	55.3	91.1	103.1	99.3	96.0	62.9	70.5
April	129.9	85.5	66.5	85.4	78.6	70.9	74.2	61.2	93.1	100.7	97.4	96.5	63.6	67.3
May	127.8	79.2	67.8	82.5	78.4	74.1	71.1	73.2	97.3	101.8	94.6	96.1	64.2	68.1
June	127.2	82.5	71.7	85.8	84.9	77.9	71.6	84.2	87.7	98.0	85.1	84.5	64.0	70.5
July	127.3	81.1	69.9	83.4	72.9	75.4	59.7	89.7	77.8	96.7	90.8	82.4	64.6	-
August	125.9	79.7	72.5	83.1	71.5	78.4	70.0	88.7	79.6	106.1	92.1	81.8	69.5	-
September	120.7	81.5	77.7	92.2	79.7	89.8	84.8	93.5	90.2	114.8	98.8	79.9	74.8	-
October	121.3	81.9	83.8	97.8	84.2	88.4	91.4	93.4	97.4	115.8	96.0	81.8	77.8	-
November	117.9	81.0	77.6	92.6	80.7	83.3	84.5	83.2	94.4	108.7	100.8	73.8	73.0	-
December	104.3	77.4	72.4	80.7	69.2	72.0	68.1	74.0	92.3	99.5	100.7	64.6	73.7	-
PAYROLLS														
Annual Average	120.9	82.1	77.6	85.7	77.2	73.3	63.8	58.0	75.0	89.4	80.7	70.2	51.3	53.4 b/
January	110.8	80.8	65.0	69.3	75.5	65.6	67.8	56.5	60.3	84.7	82.0	77.7	42.1	47.6
February	114.2	86.0	75.0	84.7	82.2	71.2	73.8	52.1	73.7	89.9	83.4	82.0	48.8	55.5
March	125.3	88.3	77.2	87.2	81.8	70.8	71.3	36.3	75.1	89.0	83.4	80.6	47.9	55.5
April	128.3	86.3	68.4	87.8	75.5	69.1	64.7	39.2	77.9	84.9	80.9	82.2	45.9	51.7
May	130.6	84.5	75.9	83.9	78.2	73.8	58.3	51.4	79.8	85.2	76.2	80.9	47.9	54.2
June	128.5	82.8	76.9	87.4	85.7	75.1	57.6	58.1	72.0	83.3	69.4	69.7	47.1	55.8
July	123.5	78.4	73.8	83.7	68.0	68.3	44.5	60.3	66.5	81.6	72.6	64.5	46.1	-
August	123.6	79.8	75.2	82.2	67.8	74.6	59.3	67.6	69.5	93.2	79.1	68.0	53.0	-
September	120.5	77.6	83.5	90.1	83.0	82.1	77.5	73.9	77.3	103.0	82.7	60.1	58.2	-
October	127.4	84.5	93.9	100.9	83.2	84.2	78.8	75.5	89.8	102.3	87.7	71.0	62.6	-
November	117.0	82.9	89.4	90.9	79.2	75.7	63.2	63.4	79.7	91.8	86.6	55.7	55.8	-
December	101.3	73.3	77.1	80.1	66.2	68.6	48.6	61.1	78.6	83.6	84.5	49.6	59.6	-

Source: U. S. Bureau of Labor Statistics, Division of Employment and Payrolls, from Revised Index Numbers of Factory Employment and Payrolls, (mimeographed) January 1923 to December 1934, from September 1938 edition; January 1935 to June 1939 from September 1939 edition.

a/ Includes knitted gloves and mittens establishments.

b/ Six month average.

Appendix Table E.- Knitted Outerwear Industry: Range in Wholesale Prices per Dozen of Complete Line Made by One Manufacturer, by Months, January 1936 through June 1939.

	1936	1937	1938	1939
	Men's Sweaters: All Worsted Slip-on			
January	$22.50 to $72.00	$22.50 to $48.00	$21.00 to $48.00	$11.50 to $36.00
February	22.50 to 72.00	22.50 to 54.00	21.00 to 48.00	11.50 to 36.00
March	22.50 to 72.00	22.50 to 54.00	18.00 to 45.00	11.50 to 36.00
April	22.50 to 72.00	22.50 to 54.00	15.00 to 45.00	11.50 to 36.00
May	22.50 to 72.00	22.50 to 54.00	15.00 to 42.00	11.50 to 36.00
June	22.50 to 72.00	22.50 to 54.00	15.00 to 39.00	11.50 to 36.00
July	21.00 to 60.00	24.00 to 60.00	10.50 to 33.00	-
August	21.00 to 60.00	24.00 to 60.00	12.00 to 33.00	-
September	21.00 to 54.00	24.00 to 60.00	12.00 to 45.00	-
October	21.00 to 48.00	24.00 to 60.00	15.00 to 39.00	-
November	21.00 to 48.00	22.50 to 54.00	15.00 to 39.00	-
December	21.00 to 48.00	22.50 to 54.00	15.00 to 39.00	-
	Women's Sweaters: All Worsted, Slip-on			
January	$27.00 to $72.00	$28.80 to $60.00	$24.00 to $48.00	$21.00 to $42.00
February	27.00 to 72.00	28.80 to 60.00	24.00 to 48.00	21.00 to 42.00
March	27.00 to 72.00	28.80 to 60.00	21.00 to 48.00	21.00 to 42.00
April	27.00 to 72.00	28.80 to 60.00	21.00 to 48.00	21.00 to 42.00
May	27.00 to 72.00	28.80 to 60.00	21.00 to 45.00	18.00 to 42.00
June	27.00 to 72.00	28.80 to 60.00	21.00 to 42.00	15.75 to 42.00
July	24.00 to 60.00	33.00 to 66.00	15.00 to 36.00	-
August	24.00 to 60.00	33.00 to 66.00	15.00 to 36.00	-
September	27.00 to 60.00	33.00 to 66.00	21.00 to 45.00	-
October	27.00 to 60.00	33.00 to 66.00	21.00 to 42.00	-
November	27.00 to 60.00	27.00 to 54.00	21.00 to 42.00	-
December	27.00 to 60.00	27.00 to 54.00	21.00 to 42.00	*
	Men's Bathing Suits: All Worsted, One Piece			
January	$24.00 to $42.00	$28.80 to $42.00	$24.00 to $42.00	$24.00 to $39.00
February	24.00 to 42.00	28.80 to 42.00	24.00 to 42.00	24.00 to 39.00
March	24.00 to 42.00	28.80 to 42.00	21.00 to 42.00	24.00 to 39.00
April	24.00 to 42.00	28.50 to 42.00	21.00 to 42.00	24.00 to 39.00
May	24.00 to 42.00	28.50 to 42.00	21.00 to 39.00	24.00 to 39.00
June	24.00 to 42.00	28.50 to 42.00	21.00 to 39.00	24.00 to 39.00
July	a/	a/	a/	-
August	a/	a/	a/	-
September	a/	a/	a/	-
October	28.80 to 42.00	27.00 to 42.00	24.00 to 39.00	-
November	28.80 to 42.00	27.00 to 42.00	24.00 to 39.00	-
December	28.80 to 42.00	24.00 to 42.00	24.00 to 39.00	-

a/ No quotation.

(Table continued on next page)

Appendix Table E. – Knitted Outerwear Industry: Range in Wholesale Prices per Dozen of Complete Line Made by One Manufacturer, by Months, January 1936 through June 1939. (continued)

	1936	1937	1938	1939
	Men's Bathing Trunks			
January	$15.00 to $36.00	$15.00 to $36.00	$13.50 to $33.00	$15.00 to $30.00
February	15.00 to 36.00	15.00 to 36.00	13.50 to 33.00	15.00 to 30.00
March	15.00 to 36.00	15.00 to 36.00	12.00 to 33.00	15.00 to 30.00
April	15.00 to 36.00	15.00 to 36.00	12.00 to 33.00	15.00 to 30.00
May	15.00 to 36.00	15.00 to 36.00	12.00 to 30.00	13.50 to 30.00
June	15.00 to 36.00	15.00 to 36.00	12.00 to 30.00	12.00 to 30.00
July	a/	a/	a/	-
August	a/	a/	a/	-
September	a/	a/	a/	-
October	15.00 to 30.00	13.50 to 33.00	12.00 to 36.00	-
November	15.00 to 30.00	13.50 to 33.00	12.00 to 36.00	-
December	15.00 to 30.00	13.50 to 33.00	12.00 to 36.00	-
	Women's Bathing Suits			
January	$27.00 to $72.00	$30.00 to $72.00	$24.00 to $60.00	$27.00 to $63.00
February	27.00 to 72.00	30.00 to 72.00	24.00 to 60.00	27.00 to 63.00
March	27.00 to 72.00	30.00 to 72.00	22.50 to 54.00	27.00 to 63.00
April	27.00 to 72.00	30.00 to 72.00	22.50 to 54.00	27.00 to 63.00
May	27.00 to 72.00	30.00 to 72.00	21.00 to 48.00	24.00 to 63.00
June	27.00 to 72.00	30.00 to 72.00	21.00 to 42.00	24.00 to 63.00
July	a/	a/	a/	-
August	a/	a/	a/	-
September	a/	a/	a/	-
October	30.00 to 72.00	28.50 to 60.00	27.00 to 60.00	-
November	30.00 to 72.00	28.50 to 60.00	27.00 to 60.00	-
December	30.00 to 72.00	24.00 to 60.00	27.00 to 60.00	-

Source: U.S. Bureau of Labor Statistics, Wholesale Price Division (unpublished data).

a/ No quotation.

Appendix Table F. -- Knitted Outerwear Industry: Range in Retail Price Quotations of Selected Types of Wool Sweaters in 32 Cities, September 1938.

Prices Quoted	Number of Quotations		
	Men's Pull-Over a/ (medium quality)	Men's Coat Style b/ (inexpensive quality)	Girls' Slip-Over c/ (inexpensive quality)
$0.59	-	-	1
0.88	-	-	1
0.98	-	-	13
1.00	-	-	68
1.09	-	-	1
1.14	-	-	1
1.15	-	-	5
1.19	-	-	26
1.25	-	-	8
1.29	-	-	2
1.39	-	-	1
2.45	-	1	-
2.49	-	4	-
2.50	-	2	-
2.59	-	3	-
2.69	-	1	-
2.77	-	1	-
2.85	1	1	-
2.88	-	1	-
2.89	1	1	-
2.94	-	1	-
2.95	33	52	-
2.98	21	38	-
2.99	-	2	-
3.00	3	5	-
3.29	-	1	-
3.50	12	2	-
3.69	1	-	-
3.88	1	-	-
3.95	40	6	-
3.98	15	-	-
4.00	4	-	-
Total	132	122	127

Source: U. S. Bureau of Labor Statistics, Retail Price Division.

Specifications:

a/ All wool worsted, 3-ply yarns; 2 x 2 ribbed knit neck, cuffs and bottom; may have short slide fastener; full sized, well made; 12 pounds per dozen.

b/ All wool, single yarn, flat knit; 5 to 6 buttons, 2 pockets, fair workmanship; 12 pounds per dozen.

c/ Slip-over style (crew or V neck), inexpensive quality, size 8 years - all wool, worsted, single yarn, 2 x 2 ribbed knit neck, wrists, and waist; fair workmanship; may have short slide fastener.

Appendix Table G. — Knitted Outerwear Industry: Manufacturers' and Wholesalers' Profit Ratios, 1931-1937

Year	Manufacturers					Wholesalers			
	Number of firms reporting a/	Percent of total firms b/	Ratio of Net Profits to:			Number of firms reporting a/	Ratio of Net Profits to:		
			Net Sales (%)	Tangible net worth (%) (c)	Net working capital d/ (%)		Net Sales (%)	Tangible net worth (%)	Net working capital (%)
1931	88	12.4	0.43	1.70	3.38	20	-0.80e/	-4.07e/	-5.13e/
1932	89	f/	-1.12e/	-4.08e/	-6.86e/	31	-1.03e/	-5.59e/	-6.23e/
1933	106	17.6	-0.33e/	-1.00e/	-1.85e/	29	0.25	1.19	1.39
1934	103	f/	0.66	2.95	3.97	26	1.92	9.73	10.67
1935	74	9.8	0.44	1.74	2.97	32	1.89	8.92	9.64
1936	78	f/	1.18	4.23	7.69	24	1.59	8.81	9.82
1937	74	11.1	0.32	0.85	1.21	25	0.50	2.05	2.38
7 year Averages									
Knitted Outerwear	87	12.4g/	0.23	.91	1.50	27	0.62	3.01	3.22
Men's Shirts, Underwear and Pajamas	66	-	0.45	2.18	2.66	f/	f/	f/	f/
Hosiery	38	-	0.83	2.07	5.35	43	0.30	1.28	1.40

Source: Roy A. Foulke, Dun & Bradstreet, Inc. 1931-1935: Behind the Scenes of Business, Revised Edition, 1937, pp. 136 and 192; 1936: Signs of the Times, 1938, pp. 30 and 38; 1937: They Said it With Inventories, 1939, pp. 22 and 28.

a/ It must be noted that this sample varies not only as to number of firms but also that the firms reporting are not identical from year to year. Further, in the case of wholesalers, it is not known to what extent these may include jobber-manufacturers (contract-employers) who own and consign yarn.

b/ Number reporting as a percent of the number of establishments shown by the Census of Manufactures.

Behind the Scenes of Business, p. 16, gives the following definitions:

c/ Tangible net worth is the sum of all outstanding preferred and common stocks, surplus, and undivided profits less any intangible items in the assets.

d/ The Net Working Capital - the difference between current assets and current debt.

e/ Deficit

f/ No data

g/ Available for Census years only.

Volume 2

REPORT ON

THE

KNITTED OUTERWEAR INDUSTRY

PART II

Prepared by Economic Section,
Wage and Hour Division, for
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PART II

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REPORT ON THE KNITTED OUTERWEAR INDUSTRY

Part II.

II. FACTORS BEARING ON THE QUESTION OF NET SUBSTANTIAL CURTAILMENT OF EMPLOYMENT IN THE INDUSTRY AS A WHOLE (CONTINUED)

Before the backdrop of general economic and competitive conditions portrayed in Part I of this report, an examination of the effects of various possible wage minima upon operating costs, prices, and consumer demand can be presented. This analysis has for its foundation the Bureau of Labor Statistics survey on earnings and hours [1]; and primary stress is laid on the effects of any given minimum upon employment.

D. COST, PRICES, AND DEMAND IN THE INDUSTRY AS A WHOLE

1. Distribution of employees by average hourly earnings

A distribution of hourly earnings of workers in the knitted outerwear industry, presented in Table 1, shows that in August 1938, or two months prior to the effective date of the Fair Labor Standards Act, employees were paid hourly rates ranging from less than 25 cents to over $1.20. More than one-fifth of the workers, (21.2 percent) earned in excess of 57½ cents per hour, and the average hourly rate for all employees was 45.8 cents at that time. However, the 25-cent statutory minimum, effective between October 24, 1938 and October 24, 1939, caused an increase in the industry-wide average by raising the wages of workers receiving

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[1] Bureau of Labor Statistics, Division of Wage and Hour Statistics, Earnings and Hours in the Knitted Underwear, Outerwear, Cloth, and Gloves and Mittens Industries (mimeographed October, 1939). The Section on the Knitted Outerwear Industry is hereinafter referred to as the Bureau of Labor Statistics Survey. Most of the data presented in this study were obtained in August, and the remainder in September, 1938, believed to be a normal period of operation in that year. It may be noted that all data in the survey and therefore the data contained in Part II of this report apply exclusively to factory workers. The survey represents approximately a 25 percent sample of employment in the industry. Some employees producing polo and sport shirts were included, since this survey was planned before the final definition of this industry was determined.

Table 1 -- Knitted Outerwear Industry: Percentage Distribution of Employees, by Average Hourly Earnings, August and September, 1938.

Average Hourly Earnings	Percent of Employees	
	Simple	Cumulative
Under 25.0 cents	9.6 %	9.6 %
25.0 and under 27.5 cents	5.3	14.9
27.5 " " 30.0 "	5.9	20.8
30.0 " " 32.5 "	6.5	27.3
32.5 " " 35.0 "	5.4	32.7
35.0 " " 37.5 "	7.7	40.4
37.5 " " 40.0 "	6.2	46.6
40.0 " " 42.5 "	6.7	53.3
42.5 " " 47.5 "	12.2	65.5
47.5 " " 52.5 "	8.5	74.0
52.5 " " 57.5 "	5.8	79.8
57.5 " " 62.5 "	3.9	83.7
62.5 " " 67.5 "	2.9	86.6
67.5 " " 72.5 "	2.7	89.3
72.5 " " 77.5 "	2.3	91.6
77.5 " " 82.5 "	1.5	93.1
82.5 " " 87.5 "	1.5	94.6
87.5 " " 92.5 "	.8	95.4
92.5 " " $1.00	1.1	96.5
$1.00 " " $1.10	1.4	97.9
$1.10 " " $1.20	.8	98.7
$1.20 and over	1.3	100.0

Source: Compiled from data of the Bureau of Labor Statistics Survey.

less than the minimum of 25 cents per hour. Again, now that a 30-cent statutory minimum is in effect, a further slight increase would be reflected in the general average. [1]

2. Number and percentage of wage earners directly affected by the establishment of various minimum wage rates

A study of the distribution of hourly earnings reveals that a substantial proportion of employees in the knitted outerwear industry received less than 40 cents per hour, the highest possible minimum provided for by the Act. Among all employees, as shown in Table 1, (last column), 27.3 percent received earnings under 32½ cents per hour; 32.7 percent, under 35 cents per hour; and 46.6 percent, under 40 cents per hour. Thus, a minimum wage rate of 32½ cents per hour would result directly in an increase in hourly earnings for about one out of every four employees; a minimum wage rate of 35 cents per hour would directly increase wages for about one out of every three employees; and a rate of 40 cents per hour would result in a direct increase for nearly one of every two employees.

For the purposes of illustration, these percentages may be applied to the average employment reported for 1938 of 24,726 [2]. On this basis, the establishment of a minimum wage rate of 35 cents an hour is estimated directly to affect slightly over 8,000 workers, and a 40-cent minimum would directly affect approximately 11,500 workers. The detailed estimates are presented in Table 2.

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[1] The Bureau of Labor Statistics data provide a basis for computing average hourly earnings under either the 25-cent or the 30-cent statutory minimum. Thus, if all workers receiving less than 25 cents in August and September 1938 are assumed to have received exactly the 25-cent statutory minimum during its effective period, the average for all workers was raised from 45.8 cents to 46.5 cents per hour. Also, if all workers who received less than 30 cents in August and September 1938 are now assumed to be receiving exactly 30 cents under the new statutory minimum, the average for all employees would be 47.1 cents per hour.

[2] Computed from Bureau of Labor Statistics index of employment, which has been adjusted to 1937 Census data. The figure is slightly augmented by the inclusion of knitted gloves and mittens establishments which in 1937 accounted for 3,182 employees. However, the 24,726 figure probably represents an understatement, since it is subject to the general limitations of Census data, as described early in this report, in that no report was made on homeworkers or of establishments having less than $5,000 annual product, nor is there a record of employment for firms which have failed to report to the Census.

Table 2 - Knitted Outerwear Industry: Estimated Number of Workers Directly Affected by the Establishment of Certain Specified Minimum Wage Rates. [a]

Minimum Hourly Earnings of:	Estimated Number of Workers Affected
32.5 cents	6,750
35.0 "	8,085
37.5 "	9,989
40.0 "	11,522

Source: Computed from Table 1 and Appendix Table D.

[a] Based on 1938 employment (12 month average) of 24,726. This figure does not include homeworkers, nor employment in firms not reported by the Census. Includes employment in knitted gloves and mittens establishments, since these data are not separately available for 1938.

3. Percentage increase in the industry's wage bill resulting directly from the establishment of various minimum wage rates

The percentage of the total number of employees receiving less than a given minimum wage rate cannot be accepted as a measure of the direct effect of the establishment of that minimum on the wage bill of the industry. Employees who are being paid a low hourly wage receive less than a proportionate share of the total wages paid, and the granting of an increase necessary to raise the wages of this group to the established minimum would result in a relatively small percentage increase in the total wage bill.

The method of calculating the direct effect of a specified minimum wage on the total wage bill of an industry is illustrated in Table 3, which shows the effects of increasing the previous statutory minimum of 25 cents to 30 cents per hour in the knitted outerwear industry, and also those

Table 3 - Knitted Outerwear Industry: Examples of Method of Computing the Estimated Direct Increase in the Total Wage Bill.

(1) Hourly Earnings Groups	(2) Mid-point of hourly earnings groups		(3) Average hourly earnings for the industry		(4) Mid-point of designated hourly earnings group ÷ average hourly earnings (2) ÷ (3)		(5) Employees receiving hourly earnings designated		(6) Part of total wage bill received by each group (4) ÷ (5)		(7) Resultant increase in wages of each group		(8) Estimated increase in wage bill resulting directly from the establishment of a given minimum (6) ÷ (7)
	(cents per hour)						(percent)						
Resulting from increasing previous 25-cent minimum to 30 cents													
25 a/	25.00 a/	÷	46.3	=	0.540	X	9.6	=	5.184	X	20.0	=	1.03
25 - 27.5	26.25	÷	46.3	=	0.567	X	5.3	=	3.005	X	14.3	=	0.43
27.5 - 30	28.75	÷	46.3	=	0.621	X	5.9	=	3.664	X	4.3	=	0.15
	Total percent increase in wage bill											=	1.61
Resulting from increasing present 30-cent minimum to 35 cents													
30 b/	30.00 b/	÷	47.1	=	0.637	X	20.8	=	13,250	X	16.67	=	2.21
30 - 32.5	31.25	÷	47.1	=	0.663	X	6.5	=	4,310	X	12.00	=	0.52
32.5 - 35	33.75	÷	47.1	=	0.717	X	5.4	=	3,872	X	3.70	=	0.14
	Total percent increase in wage bill											=	2.87

a/ It is assumed that those employees receiving less than 25 cents per hour prior to October 24, 1938 were thereafter receiving exactly 25 cents per hour.

b/ It is assumed that those employees receiving less than 30 cents per hour prior to October 24, 1939 are now receiving exactly 30 cents per hour.

of increasing the present 30-cent statutory minimum to 35 cents an hour. These two illustrations are presented in order to clarify the succeeding tables. In each case, two series of computations are made: the first to show increases resulting from various possible minima above the 25-cent statutory minimum in effect until October 24, 1939; and the second to show increases resulting from these possible higher minima above the 30-cent statutory minimum, effective after that date.

It is necessary first to determine the ratio of the selected point of the designated hourly earnings of the individuals or groups of individuals receiving less than the average wage to the average wage of the industry (column 3, obtained by dividing column 1 by column 2). This ratio, when multiplied by the percent of the total number of employees receiving the designated hourly earnings, results in a figure showing the percent of the total wage bill which would be affected by the increase (column 5, obtained by multiplying column 3 by column 4). If the percentage of the total wage bill affected is multiplied by the resultant percentage increase in the wage rate of the group necessary to bring their hourly earnings up to the specified possible minimum, the result represents the estimated percentage increase in the total wage bill necessary to bring the earnings of the group to the specified minimum (column 8, derived by multiplying column 6 by column 7).

By repeating this process for the wage earners in each group below the specified minimum and by adding the results of each calculation, the sum obtained represents the estimated percentage increase in the total wage bill necessary to bring up to the specified minimum the earnings of those employees who are receiving less than that minimum (the sum of items in column 3). [1]

Beginning from the basis of a 25-cent statutory minimum, the establishment of various higher minimum wages, as shown in Table 4, would result in direct increases in the wage bill, ranging from 1.61 under a 30-cent minimum to 8.83 percent under a 40-cent minimum for the knitted outerwear industry as a whole. The increases in the wage bill resulting from raising the present 30-cent statutory minimum to the possible higher minima would necessarily be smaller, and would range from 1.28 percent under a 32½-cent minimum to 7.12 percent under a 40-cent minimum.

Table 4 - Knitted Outerwear Industry: Estimated Percentage Increases in the Industry's Wage Bill Directly Resulting from an Increase in the Minimum Wage Rate from 25 Cents and from 30 Cents per Hour up to Specified Higher Minima.

Minimum Wage Rates (Cents per Hour)	Estimated Direct Percentage Increases in the Wage Bill	
	Above the 25-cent statutory minimum [a]	Above the 30-cent statutory minimum [b]
30.0	1.61	-
32.5	2.91	1.28
35.0	4.52	2.87
37.5	6.49	4.81
40.0	8.83	7.12

Source: Computed from data of the Bureau of Labor Statistics Survey of August, 1938.

[a] It is assumed that those employees receiving less than 25 cents per hour prior to October 24, 1938 were thereafter receiving exactly 25 cents per hour.

[b] It is assumed that those employees receiving less than 30 cents per hour prior to October 24, 1939 are now receiving exactly 30 cents per hour.

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[1] This method of calculation of effects on the total wage bill does not take account of possible differences in the weekly hours of low and high wage workers. However, a test calculation shows that no substantial difference in the final results for this industry would be found should this additional factor be introduced.

Data presented in Table 4 measure the direct impact of selected minimum wage rates on the wage bill for the entire industry. Any minimum wage rate which might be established would affect the wage bill of individual establishments in varying degrees. In general, a minimum wage rate would result in a greater increase in the wage bill of those establishments in which the average hourly earnings are relatively low than in establishments in which the average hourly earnings are relatively high.

4. Effect of minimum wage rates on wages above the minimum

None of the calculations used in arriving at the figures presented in Table 4 include the increases which might be granted to wage earners whose wages are now above the various minima in order to maintain occupational differentials, nor do they take account of possible increases in the productivity of the wage earners. The significance of these factors is so uncertain as to defy any exact calculation in advance.

Neither the N.R.A. experience with a 35-cent minimum nor experience since October, 1938, the effective date of the 25-cent statutory minimum, appear to indicate any substantial indirect increases to workers previously receiving more than those respective wage rates.

Monthly average hourly earnings before and during the N.R.A. Code together with an index based on July, 1933, or immediately prior to the effective date of the President's Re-Employment Agreement, are presented in Table 5. The various dates when official action relative to hourly earnings became effective are also noted therein.

Table 5 - Knitted Outerwear Industry: Average Hourly Earnings Before and During the N.R.A. Knitted Outerwear Code, by Months, July, 1933 to May, 1935 a/

Months and Year		Specification of Pertinent Dates	Average Hourly Earnings	
			Cents	Index (July 1933 = 100)
1933	July		27.2	100.0
	August	August 1, 1933: Effective date of 30-cent minimum of President's Re-Employment Agreement. b/	39.1	143.8
	September		41.9	154.0
	October		41.6	152.9
	November		40.7	149.6
	December	December 18, 1933: Code officially approved, with stay for children's and infants' wear producers	40.9	150.4
1934	January		44.0	161.8
	February		43.5	159.9
	March	March 16, 1934: Effective date of code for entire industry, including children's and infants' wear producers	43.7	160.7
	April		42.7	157.0
	May		43.7	160.7
	June		44.5	163.6
	July		43.6	160.3
	August		44.7	164.3
	September		45.1	165.8
	October		44.5	163.6
	November		45.5	167.3
	December		45.6	167.6
1935	January		45.0	165.4
	February		45.7	168.0
	March		45.7	168.0
	April		46.3	170.2
	May	May 27, 1935: Termination of N.R.A.	46.3	170.2

Source: Bureau of Labor Statistics, Division of Employment and Payrolls.

a/ Factory workers exclusively. Includes knitted gloves and mittens establishments, but since only 15 of those were reported by the 1937 Census, the essential accuracy of these data would not be seriously disturbed.

b/ Due in part to President's Re-Employment Agreement, effective August 1, 1933, which set a 30-cent minimum and in part to early cooperation by many manufacturers with the Code minimum of 35 cents.

It is readily apparent that the noteworthy rise in hourly earnings took place between July, 1933, when the average for all workers was only 27.2 cents per hour, and the following month, when the average rose to 39.1 cents per hour. This increase, during a single month, amounted to 44 percent. It was the immediate result of the 30-cent minimum, made effective by the President's Re-Employment Agreement on August 1, 1933. Average hourly earnings fluctuated up and down slightly through December, 1933, the month of approval of the N.R.A. Code and establishment of a 35-cent minimum. The operation of the Code occasioned an immediate increase from 40.9 cents in December to 44.0 cents in January, 1934, a rise of 7.6 percent in contrast to the 44 percent rise occasioned by the Re-Employment Agreement. Later increases after January, 1934, were intermittent and relatively slight, the highest average wage being 46.3 cents per hour in April and May, 1935, or only 5.2 percent above January, 1934. In brief, it appears that the imediate increase following establishment of the first minimum of 30 cents was great; the immediate increase after the N.R.A. minimum of 35 cents was comparatively small. The gradual increases occurring in later months following the month when each minimum became effective were of still less consequence.

If then, the increases occurring immediately after imposition of these minima are taken to represent the direct effects of raising the lower paid workers to those levels, and the later increases are taken to represent indirect increases voluntarily provided to adjust occupational differentials, it would appear that these indirect increases were relatively inconsequential both after the President's Re-Employment Agreement and after the Code minima. The direct average increase of 11.9 cents per hour between July - August, 1933, was followed by an increase of only 2.8 cents or but about one-fifth as much in September, while a slight decline took place thereafter. The direct average increase of 3.1 cents between December, 1933, and January, 1934, immediately upon approval of the Code, was followed by a decline for the next four months and then by intermittent rise, the average for January, 1935, being 45.0 cents or but one cent higher than for the corresponding month a year earlier.

Were the entire period from August, 1933, through January, 1934, taken to represent the direct effects of the Code and pre-Code minima, the direct average increase would be 16.8 cents over the July, 1933, average hourly wage. If the indirect effects are taken to be represented by the succeeding months, the greatest indirect increase during the N.R.A. period was but 2.3 cents over January, 1934, or about one-eighth of the direct increase.

Table 5, preceding, permits such comparisons for any months immediately before and during the N.R.A. period, but regardless of the months that may be chosen, it is clear that the immediate effects following the minima included most of the increases thereafter taking place. Moreover, any indirect effects of N.R.A. minima that have been or may be thus estimated probably represent an exaggeration, since the Code period, particularly in 1935, was an exceptionally favorable period for the industry, and during prosperous times some increases in earnings are to be expected irrespective of any enforced minimum wage.

However, no estimated ratio of indirect to direct increases during N.R.A. can be applied with exactness to present conditions. This is true for various reasons. Chief of these is the fact that neither the recent 25-cent minimum or any minimum which this Committee is empowered to recommend could possibly occasion the large direct increases which took place consequent to N.R.A. In fact, the combined direct and indirect increases in hourly earnings resulting from the 25-cent minimum between September, 1938, and the average for the first six months of 1939 amounted to only 1.7 cents per hour or a 3.8 percent rise. Moreover, even a 40-cent minimum at present would result in less than a 9 percent direct increase over that which prevailed under a 25-cent minimum or 7 percent above the present 30-cent minimum. (Table 4) These additions may be contrasted to the 70 percent aggregate increase which occurred between July, 1933, and April, 1935, under N.R.A.

At least seven other reasons prevent any reasonably accurate advance forecast of indirect increases or an exact comparison with earlier experience. First, such indirect increases depend upon the extent to which the minimum itself is raised. Second, the time factor is of great importance, for studies have shown that when indirect increases occur, the process is usually gradual rather than immediate. Third, the maintenance of previous occupational differentials depends on individual mill policy, for manufacturers will make different decisions as to whether these indirect increases shall be granted and to what extent. Fourth, trade union policy must be taken into account, for organized labor may or may not press for restoration of wage differentials. Fifth, the policies of other industries, either related to knitted outerwear or similarly located, will help to determine whether or not skilled workers will be able to bargain for higher wages. Sixth, the present spread in occupational differentials affects the issue, since an industry with a small range between the minimum and maximum occupational earnings would feel greater pressure towards maintaining those differentials than would this industry, where skilled workers already obtain far in excess of any minimum now contemplated. Finally, general business conditions are of great importance, for mill owners tend to grant the additional indirect increases mainly during relatively prosperous periods when they can be afforded.

In brief, all available data indicate that no definite pre-determination of indirect increases can be made, but previous experience offers strong reason for concluding that indirect increases, if and when made, add but little to the direct increases caused by the minimum itself. It is therefore believed that such indirect increases as may occur would not be sufficient to alter materially any conclusions which may be drawn from the data presented in this report.

5. Effect of various minimum wage rates on operating costs - industry as a whole

The effects of indirect increases in the wage bill become still less important, when an examination is made of the direct effects of the various possible minima on operating costs. The percentage increase in total operating costs [1] resulting from the establishment of a given minimum wage will obviously be smaller than the percentage increase in labor costs because labor costs comprise only one portion of the total cost of operation. The effect of a minimum wage on operating costs depends on the ratio of labor costs to total operating costs. For example, if labor cost represents 25 percent of total operating costs, the percentage increase in operating costs resulting from the establishment of a given minimum wage rate would be one-fourth of the percentage increase in the wage bill.

In order to obtain the ratio of labor cost to total operating costs, a questionnaire was sent by the Economic Section to members of the industry covering the year 1938, as described in Appendix A. Data were received from 120 manufacturers representing 18 percent of the establishments and 26 percent of total value of product shown for 1937 by the Census; and their reports were averaged together to obtain a composite figure. The ratio of labor cost to total operating cost was found to be 23.72 percent. However, to be certain that the sample was representative of the entire industry, the sample firms were classified according to value of net sales and these were weighted in accordance with the 1937 Census classification of firms by value of product. By so adjusting the sample firms to the Census distribution, the weighted ratio was found to be 23.65 percent, a figure which is almost identical to the unweighted ratio. This figure of 23.65 percent can safely be regarded as representing the average ratio of labor cost to operating cost for the industry as a whole.

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[1] Operating costs include total labor, raw materials, and other manufacturing costs; total overhead; and all selling and financial costs.

This average ratio, applied to the additions to the wage bill resulting from various possible minima, reveals that the aggregate direct increase in operating costs for the industry as a whole above the previous 25-cent minimum would amount to only 1.07 percent at a 35-cent minimum and to but 2.09 percent at a 40-cent minimum. These direct increases would be correspondingly smaller when measured from the present 30-cent statutory minimum, and would amount to 0.68 percent if a 35-cent minimum were established, and 1.68 percent in the event of a 40-cent minimum. The complete data are shown in Table 6.

Table 6 - Knitted Outerwear Industry: Estimated Percentage Increases in Total Operating Costs Directly Resulting from an Increase in the Minimum Wage Rate from 25 Cents and from 30 Cents per Hour up to Specified Higher Minima.

Minimum Wage Rates (cents per hour)	Estimated Direct Percentage Increase in Operating Costs a/	
	Above the 25-cent Statutory Minimum b/	Above the 30-cent Statutory Minimum c/
30.0	0.38	-
32.5	0.69	0.30
35.0	1.07	0.68
37.5	1.53	1.14
40.0	2.09	1.68

Source: Computed from Table 4.

a/ Based on labor representing 25.65 percent of total operating costs. The unweighted ratio of labor costs to operating costs was 23.72 percent.

b/ It is assumed that those employees receiving less than 25 cents per hour prior to October 24, 1938, are now receiving exactly 25 cents per hour.

c/ It is assumed that those employees receiving less than 30 cents per hour prior to October 24, 1939, are now receiving exactly 30 cents per hour.

However, increases in operating cost, whether large or small, are of significance to manufacturers whose volume of sales is unaltered only if the additional costs are absorbed by them, and are not passed on to retailers or to consumers in the form of higher prices. In this connection it is interesting to compare the labor cost increases with increases in raw materials costs which occur during periods of rising yarn prices. Data received in response to the Economic Section cost questionnaire, and weighted by the Census distribution as previously described, reveal that raw materials represent an average of 57.03 percent of total operating costs. 1/ It is readily apparent that raw materials represent a

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1/ The unweighted ratio was 57.49 percent. For further detail, see Appendix A.

much higher proportion of operating costs than does labor, in fact an average of more than twice as much. As was shown in the section on raw materials, [1] yarn prices are subject to considerable fluctuation both monthly and from year to year. An annual rise or fall of 5 or 10 percent and more is not unusual in the case of wool yarn. Even a 5 percent increase would then occasion a 2.9 percent rise in operating costs, or greater than the increase directly resulting from a 40-cent minimum wage. In short, the fluctuations in raw materials cost, to which the industry is constantly subject, affects total operating costs far more extensively than any wage minimum authorized by the Fair Labor Standards Act. Study of the industry also reveals that wholesale and retail prices have not fluctuated readily in response to changes in the price of raw materials, but that cost changes were mainly compensated for by slight alterations in the quality of garments produced. It is therefore probable that increases in operating costs consequent to any minimum now under consideration would be similarly adjusted by the industry.

Nevertheless, an analysis can be made to determine the extent to which the increases in operating costs would affect retail prices, should the industry shift the entire cost additions resulting from any given minimum to consumers.

6. Effect of various minimum wage rates on consumer prices

In the preceding analysis, it was shown that, based alternatively on the 25-cent and on the 30-cent statutory minima, the establishment of a 35-cent minimum wage would occasion a direct increase in operating cost of 1.07 percent or of 0.68 percent respectively; and were a 40-cent minimum put into effect, (Table 6) an increase of 2.09 percent or of 1.68 percent, respectively would occur. However, should manufacturers translate these additions into higher wholesale prices, the percentages would necessarily be somewhat smaller, since selling prices also cover returns to executives and owners as well as profits, none of which were included in operating costs. 1/ On these assumptions and with reference to the 25-cent minimum, the average increases in the prices paid by retailers would be approximately 1 percent, if a 35-cent minimum were established, or approximately 2 percent under a 40-cent minimum. The increased prices which might be occasioned by a rise in labor costs over and above a 30-cent statutory minimum would be even less than the figures just given. On the assumption that retailers in turn shifted the exact additional costs to consumers, retail prices would increase on the average by the same small proportions. For volume sellers, now retailing at or near $1.00, $1.95, and $2.95, 2/ consumers would pay close to an additional 1 cent, 2 cents, and 3 cents respectively, or about $1.01, $1.97, and $2.98. In practice, however, retailers would be more apt to continue to sell these articles at approximately $1.00, $1.98, and $2.98, if they now sell at standardized price brackets. On the other hand, as shown in the earlier discussion on retail price ranges, a number of retailers are now selling at prices between these brackets. Such outlets

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[1] Part I of this report.

1/ Thus the 1937 Census reveals total labor cost (payrolls) to equal but 20.2 percent of total value of product, and the returns from the Economic Section cost questionnaire revealed the ratio of labor cost to net sales for 1938 as 22.6 percent. Neither figure equals the ratio of labor to operating costs of 23.65 percent in 1938, used in Table 6.

2/ Wholesale and retail prices of volume sellers were requested in the cost questionnaire. A total of 58 companies responded on sweater prices and their net sales of sweaters aggregated $12,050,309 or 20.4 percent of 1937 value of product on sweaters as reported by the Census. Of this sample, firms accounting for 15.3 percent of net sales on sweaters reported their volume sellers as retailing at $1.00; firms with 23.1 percent of net sales reported a retail price of $1.95 to $2.00; while firms representing 41.3 percent of net sales reported retail prices from $2.85 to $3.00. In other words, firms with nearly 80 percent of the sweater sales reported manufactured volume sellers in the $1.00, $1.95, and $2.95 retail range. Those representing only 11.2 percent of net sales reported prices of $3.95 or higher; while those with 9.1 percent of net sales reported retail prices of volume sellers that fall between these brackets.

could be expected to add very close to the exact increases in price resulting from a given minimum, were manufacturers to shift the added cost in this manner. In short, the additions to operating cost for the industry as a whole directly resulting from even a 40-cent minimum appear to be too small to occasion noticeable differences in retail prices, even were the full direct effects thus shifted to the ultimate consumer.

Actually, however, it is more probable that no price changes would occur, since there are various methods whereby manufacturers can offset the cost additions. One is the method commonly utilized to absorb increases in the price of raw materials, namely, by making small alterations in the amount or quality of yarn or other materials used to produce the finished garment. Again, there are numerous possibilities of reducing overhead, financial expenses, and other costs sufficiently to compensate for labor cost increases. Thus, for firms responding to the cost questionnaire, the sum of such costs other than those for labor and raw materials[1] represented an average ratio of 19.3 percent of total operating costs. Yet differences in this ratio reported by individual firms were extreme, ranging from a low of 4.7 percent to a high of 46.7 percent of their respective operating costs. It therefore appears probable that at least those firms reporting a higher than average ratio have opportunity to adjust these overhead and other expenses in order to offset the labor cost additions. Further, over a period of time, the augmented wages to lower paid workers may be counterbalanced by increased labor efficiency. The additions to total operating costs would tend to reduce profits only for firms that are unable to find methods of adjusting their cost structures.

In general, then, the likelihood of average increases in operating costs being reflected in consumers' prices depends mainly upon the interaction of two factors: first, the rigidity or flexibility of wholesale and retail prices; and second, the extent to which other production costs are sufficiently flexible to permit compensatory adjustments.

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[1] Total overhead, selling and financial expenses, and all direct manufacturing costs except labor and raw materials.

7. Effect of various minimum wage rates on demand

From the foregoing analysis little or no reduction in the volume of consumers' purchases can be anticipated as a result of the establishment of the specified higher minimum wage rates, since the ultimate price to consumers would scarcely, if at all, reflect the slight increase in operating costs occasioned. Moreover, available evidence indicates that general purchasing power, living standards, population trends and particularly style factors influence consumer demand for knitted outerwear more strongly than do retail prices.

It is apparent that consumer demand is the basic factor determining the amount of production and thereby employment in the industry as a whole. The conclusion follows that any given minimum wage can be responsible for substantial net curtailment of employment in the industry as a whole only if it would cause retail prices to rise enough so as to substantially reduce the volume of these goods which is demanded by consumers.

II. FACTORS BEARING ON COMPETITIVE CONDITIONS LEADING TO POSSIBLE MODIFICATION OF TENTATIVE CONCLUSIONS REGARDING NET CURTAILMENT OF EMPLOYMENT IN THE INDUSTRY AS A WHOLE

The preceding estimates of possible cost and price increases were directed at throwing light on the problem of whether a given minimum wage could occasion substantial net curtailment of employment. The analysis dealt with the industry as a whole, in effect treating the industry as if it were a single company and disregarding differences in wage levels and labor costs among the individual companies. There was tacit assumption that whenever orders from buyers of knitted outerwear were lost by mills that found successful operation difficult under the wage increase, those orders would be filled by other companies better able to adjust themselves. The analysis assumed that decreases in employment which might occur in the former group of manufacturers would largely be offset by employment increases in the latter more efficient group, and that this group had or would be able to obtain the necessary productive capacity to fill the additional orders. Further, it implied that, because any decline of production among the less efficient plants would be compensated for through the increase in production among the more efficient, there would be no price increase caused by a net decline in production relative to demand.

Actually, of course, these assumptions may or may not be valid. There may be substantial frictions with regard to mobility of labor and of capital and with regard to competition among firms in the industry. For the immediate present, at least, the statements in the foregoing section with regard to cost and price increases might not reflect accurately what would happen from the imposition of a specified minimum wage rate.

It is necessary, therefore, to cease regarding the industry as a single unit, and to inquire into the varying incidence of specified minimum wage rates on the several groups of plants within the industry. A very complicated method would be to study each plant separately. A more simple and fruitful method is to separate the industry's plants into groups, classifying them on the basis of average hourly earnings per plant. If it appears from this analysis, as well as from the early discussion of the industry's competitive economics, that the low wage plants not only experience relatively high increases in cost resulting from the establishment of certain specified minimum rates, but that such plants also appear to be important within the industry in terms of employment, productive capacity, and competition, it might be necessary to use the cost increases of plants paying less than average wages as the basis for estimating possible effects on prices, demand, and employment.

The U. S. Bureau of Labor Statistics was able to supply statistics on the knitted outerwear industry, by groups of plants.

Just how much importance should be attached to the cost increases of the low-wage plants, in comparison with the cost increases for the industry as a whole, is a matter for the Committee to decide on the basis of the factual data.

A. DISTRIBUTION OF EMPLOYEES' HOURLY EARNINGS, BY PLANT AVERAGE HOURLY EARNINGS

The extent to which the wage bill of individual establishments is directly affected by a given hourly wage rate depends upon the distribution of employees in such plants among various wage levels. Plants with relatively low average hourly earnings have a heavy concentration of workers in the lower wage groups, although some employees may receive high wages. As the plant average hourly wage rate rises, the proportion of employees receiving relatively high wages becomes larger, and a correspondingly smaller number of wage earners is included in the lower wage brackets.

The U. S. Bureau of Labor Statistics survey shows that as of August-September, 1938, the average hourly earnings in individual plants ranged from under 30 cents to considerably over 65 cents, as shown in Table 7. Within each group of plants, average earnings for different employees ranged at that time from under 30 cents, and in many groups from under as low as 17.5 cents per hour, to over $1.20 hourly. However, for the lowest wage group of plants, less than 1 percent of the employees received 57.5 cents per hour or more; while the highest wage group of plants over 60 percent received at least that wage.

Table 8 presents this wage distribution in summary form. In the lowest wage group of plants, those paying average hourly earnings of under 30 cents, four-fifths of the workers received less than 30 cents per hour, and nine-tenths received less than 35 cents per hour.

Table 71 — Knitted Outerwear Industry: Cumulative Percentage Distribution of Employees According to Average Hourly Earnings by Groups of Plants, August 1938.

Average Hourly Earnings (cents)	Total	All Workers										
		Percentage of Employees Receiving Less Than Specified Earnings in Plants Having Average Hourly Earnings of:										
		Under 30.0 cents a/	30.0 and under 35.0 cents	35.0 and under 37.5 cents	37.5 and under 40.0 cents	40.0 and under 42.5 cents	42.5 and under 45.0 cents	45.0 and under 50.0 cents	50.0 and under 55.0 cents	55.0 and under 60.0 cents	60.0 and under 65.0 cents	65.0 cents and over b/
Under 17.5	1.8%	15.4%	1.4%	0.2%	0.4%	1.7%	0.2%	0.1%	0.4%	0.4%	- %	- %
" 20.0	4.1	32.3	5.5	1.6	1.2	2.7	.8	.4	.8	.6	-	-
" 22.5	6.9	47.7	11.2	4.5	3.6	3.7	1.9	1.1	1.4	2.0	-	-
" 25.0	9.6	55.2	18.9	5.9	8.0	6.8	3.8	2.0	1.7	5.4	-	-
" 27.5	14.9	68.8	33.9	11.9	13.9	11.7	9.0	3.9	4.3	9.0	0.3	-
" 30.0	20.8	80.7	54.4	21.7	22.1	18.4	12.9	6.2	6.1	11.2	.3	0.2
" 32.5	27.3	90.8	68.7	33.7	32.3	22.6	18.7	10.2	9.1	17.3	2.8	.4
" 35.0	32.7	94.0	82.2	42.8	42.8	31.4	29.2	12.8	10.5	20.1	5.0	.6
" 37.5	40.4	95.8	87.4	64.6	56.4	46.1	36.3	23.8	15.1	24.1	8.7	1.0
" 40.0	46.6	96.3	91.8	75.1	66.0	58.7	47.3	33.5	18.3	29.8	12.7	1.4
" 42.5	53.3	96.9	92.9	82.3	74.5	63.2	59.4	44.5	26.7	35.1	18.9	3.6
" 47.5	65.5	98.1	95.1	89.5	85.4	77.2	75.0	62.0	46.6	43.2	31.4	15.5
" 52.5	74.0	98.9	96.2	93.6	90.8	86.4	82.5	73.1	62.6	53.0	41.0	23.1
" 57.5	79.8	99.1	97.0	96.7	94.3	91.3	88.9	81.6	71.7	60.4	49.7	30.9
" 62.5	83.7	99.1	97.3	97.4	96.0	94.1	90.4	86.3	79.7	66.3	60.1	35.5
" 67.5	86.6	99.1	97.3	97.4	96.9	95.1	92.1	90.1	84.6	71.4	67.6	42.0
" 72.5	89.3	99.1	98.1	97.6	97.8	96.1	94.2	92.6	87.9	74.6	74.5	54.0
" 77.5	91.6	99.3	98.4	98.3	98.2	97.8	96.3	94.5	91.6	79.2	79.2	60.7
" 82.5	93.1	99.3	98.6	99.0	99.0	98.1	96.7	96.6	93.5	81.6	82.9	64.9
" 87.5	94.6	99.6	98.6	99.2	99.2	98.8	97.1	97.8	94.7	85.2	86.6	72.2
" 92.5	95.4	99.6	98.8	99.4	99.4	99.1	97.3	98.3	95.7	88.8	88.2	74.8
" 100.0	96.5	99.6	99.0	99.6	99.4	99.4	98.6	98.5	96.8	91.8	91.9	80.0
" 110.0	97.9	99.8	99.2	99.8	99.7	99.4	99.2	99.6	98.3	94.8	96.3	86.3
" 120.0	98.7	99.8	99.2	100.0	99.9	99.7	99.6	99.7	99.2	97.2	96.9	91.1
Number of workers	7,230	654	637	419	962	287	534	975	1,442	503	321	496
Number of plants	105	4	6	6	10	7	7	12	17	12	7	17

Source: Bureau of Labor Statistics Survey of August 1938.

a/ Average = 25.2 cents. b/ Average = 75.4 cents

Table 8. — Knitted Outerwear Industry: Cumulative Percentage Distribution of Workers According to Average Hourly Earnings under 40 Cents, by Groups of Plants, as of August 1938.

Average Hourly Earnings (cents)	Total	All Workers: Percentage of Employees Receiving Less Than Specified Earnings in Plants Having Average Hourly Earnings of: Under 30.0 cents a/	30.0 and under 35.0 cents	35.0 and under 37.5 cents	37.5 and under 40.0 cents	40.0 and under 42.5 cents	42.5 and under 45.0 cents	45.0 and under 50.0 cents	50.0 and under 55.0 cents	55.0 and under 60.0 cents	60.0 and under 65.0 cents	65.0 cents and over b/
Under 30.0	20.8%	80.7%	54.4%	21.7%	22.1%	18.4%	12.9%	6.2%	6.1%	11.2%	0.3%	0.2%
" 32.5	27.3	90.8	68.7	33.7	32.3	22.6	18.7	10.2	9.1	17.3	2.8	.4
" 35.0	32.7	94.0	82.2	42.8	42.8	31.4	29.2	12.8	10.5	20.1	5.0	.6
" 37.5	40.4	95.8	87.4	64.6	56.4	46.1	36.3	23.8	15.1	24.1	8.7	1.0
" 40.0	46.6	96.3	91.8	75.1	66.0	58.7	47.3	33.5	18.3	29.8	12.7	1.4
Percentage of workers	100.0	9.0	8.8	5.8	13.3	4.0	7.4	13.5	19.9	7.0	4.4	6.9
Percentage of plants	100.0	3.8	5.7	5.7	9.5	6.7	6.7	11.4	16.2	11.4	6.7	16.2

Source: Compiled from data in Bureau of Labor Statistics Survey of August, 1938.

a/ Average = 25.2 cents.
b/ Average = 75.4 cents.

However, this low wage group employed only 9 percent of the industry's total number of wage earners and represented less than four percent of the total number of plants. At the other extreme, in plants with average hourly earnings of 65 cents and over, only two-tenths (0.2) of one percent of the workers received less than 30 cents per hour; only 0.6 percent received less than 35 cents per hour, and only 1.4 percent received less than 40 cents per hour. This highest wage group employed not quite 7 percent of the workers but represented over 16 percent of the total number of plants.

B. DIRECT EFFECTS OF VARIOUS MINIMA ON WAGE BILLS AND ON TOTAL COSTS IN EACH PLANT AVERAGE GROUP

The direct percentage increase in the wage bill that would result from raising the recent 25-cent statutory minimum to specified higher minima is shown in Table 9. For the small group of plants paying the lowest average wages, namely under 30 cents per hour, the increase amounts to 12.2 percent under a 30-cent minimum; to 28.1 percent under a 35-cent hourly minimum; and to 45.1 percent were a 40-cent minimum put into effect. On the other hand, for the highest wage group of plants, those averaging 65 cents per hour and over, the establishment of a 30-cent minimum results in almost no increase, only three-thousandths (0.003) of one percent; and even a 40-cent minimum would result in an increase of but one-tenth (0.1) of one percent.

Table 9. — Knitted Outerwear Industry: Estimated Percentage Increases in the Wage Bill Directly Resulting from the Establishment of Certain Specified Minimum Wage Rates, by Groups of Plants [a]

(Above 25-Cent Statutory Minimum)

Minimum Wage Rates (cents per hour)	All Plants (Average)	Estimated Direct Percentage Increases in the Wage Bill in Plants Having Average Hourly Earnings of:										
		Under 30.0 cents	30.0 and under 35.0 cents	35.0 and under 37.5 cents	37.5 and under 40.0 cents	40.0 and under 42.5 cents	42.5 and under 45.0 cents	45.0 and under 50.0 cents	50.0 and under 55.0 cents	55.0 and under 60.0 cents	60.0 and under 65.0 cents	65.0 cents and over
30.0	1.61%	12.21%	5.46%	1.72%	1.88%	1.47%	.99%	.42%	.39%	.75%	.02%	0.003%
32.5	2.91	19.87	10.22	3.58	3.65	2.71	1.90	.85	.75	1.38	.08	.01
35.0	4.52	28.12	16.06	6.14	6.08	4.35	3.27	1.45	1.22	2.19	.24	.03
37.5	6.49	36.59	22.63	9.74	9.31	6.69	5.15	2.42	1.83	3.16	.51	.06
40.0	8.83	45.16	29.56	14.42	13.28	9.86	7.55	3.92	2.62	4.33	.95	.10
Percent of workers	100.0	9.0	8.8	5.8	13.3	4.0	7.4	13.5	19.9	7.0	4.4	6.9
Percent of plants	100.0	3.8	5.7	5.7	9.5	6.7	6.7	11.4	16.2	11.4	6.7	16.2
Average hourly earnings	46.3¢	28.0¢	32.3¢	37.3¢	38.5¢	41.3¢	43.6¢	47.6¢	52.5¢	57.3¢	62.0¢	75.4¢

Source: Computed from data in Bureau of Labor Statistics Survey.

[a] It is assumed that those employees receiving less than 25 cents per hour prior to October 24, 1938, were thereafter receiving exactly 25 cents per hour.

Table 10 is identical to Table 9 except that the increases resulting from possible minima are calculated on the basis of the 30-cent statutory minimum now in effect. These data are particularly pertinent, since they indicate the direct increases occasioned by whatever minimum the Committee may recommend in relation to the existing wage bill. The direct increase in the wage bill resulting from a 35-cent minimum would thus amount to only 10.1 percent for the plant group paying the lowest wages, namely, an average of from 30 to 35 cents per hour; while the highest wage group of plants would require an increase of but three-hundredths of one percent (0.03%). A 40-cent minimum would cause a 23 percent direct increase for the lowest wage plants, but less than one-tenth of one percent (0.1%) for the group paying average wages of 65 cents or over.

Inasmuch as labor cost is only one of the costs which go to make up total operating cost, the percentage increase in total operating costs resulting directly from the establishment of any specified minimum must necessarily be smaller than the corresponding percentage increase in labor cost alone. The average ratio of labor cost to total operating cost of 23.65 percent, as revealed by the Economic Section's cost survey, was applied to the wage bill increases by groups of plants, as shown in Table 11.

The direct percentage increases in operating costs resulting from raising the previous 25-cent minimum to 35 cents amount to 6.65 percent for the lowest wage group of plants; while for the highest wage group of plants, the increases in operating costs were found to

Table 102 — Knitted Outerwear Industry: Estimated Percentage Increases in Wage Bill Directly Resulting from the Establishment of Certain Specified Minimum Wage Rates, by Groups of Plants a/ (Above the 30-Cent Statutory Minimum)

Minimum Wage Rates (cents per hour)	All Plants (Average)	Estimated Direct Percentage Increases in Wage Bill in Plants Having Average Hourly Earnings of:									
		30.0 and under 35.0 cents	35.0 and under 37.5 cents	37.5 and under 40.0 cents	40.0 and under 42.5 cents	42.5 and under 45.0 cents	45.0 and under 50.0 cents	50.0 and under 55.0 cents	55.0 and under 60.0 cents	60.0 and under 65.0 cents	65.0 cents and over b/
32.5	1.28%	4.54%	1.83%	1.74%	1.23%	0.90%	0.43%	0.36%	0.62%	0.06%	0.01%
35.0	2.87	10.11	4.35	4.13	2.85	2.26	1.03	0.83	1.43	0.22	0.03
37.5	4.81	16.36	7.90	7.30	5.17	4.12	1.99	1.44	2.39	0.50	0.05
40.0	7.12	22.97	12.50	11.20	8.32	6.50	3.48	2.23	3.55	0.93	0.09
Percentage of workers	100.0	17.8	5.8	13.3	4.0	7.4	13.5	19.9	7.0	4.4	6.9
Percentage of plants	100.0	9.5	5.7	9.5	6.7	6.7	11.4	16.2	11.4	6.7	16.2
Average hourly earnings	47.1¢	33.9¢	37.9¢	39.2¢	41.7¢	44.0¢	47.9¢	52.7¢	57.7¢	62.0¢	75.4¢

Source: Computed from data in Bureau of Labor Statistics Survey.

a/ It is assumed that those employees receiving less than 30 cents per hour prior to October 24, 1939, are now receiving exactly 30 cents.

b/ Average = 75.4 cents.

Table 11. — Knitted Outerwear Industry: Estimated Percentage Increases in Total Operating Costs Directly Resulting from the Establishment of Certain Specified Minimum Hourly Wage Rates, by Groups of Plants a/ (Above the 25-Cent Statutory Minimum)

Minimum Wage Rates (cents per hour)	All Workers											
	All Plants	Estimated Direct Percentage Increases in Total Operating Costs in Plants Having Average Hourly Earnings of: b/										
		Under 30.0 cents c/	30.0 and under 35.0 cents	35.0 and under 37.5 cents	37.5 and under 40.0 cents	40.0 and under 42.5 cents	42.5 and under 45.0 cents	45.0 and under 50.0 cents	50.0 and under 55.0 cents	55.0 and under 60.0 cents	60.0 and under 65.0 cents	65.0 cents and over d/
30.0	.38%	2.89%	1.29%	.41%	.44%	.35%	.23%	.10%	.09%	.18%	e/	e/
32.5	.69	4.70	2.42	.85	.86	.64	.45	.20	.18	.33	0.02%	e/
35.0	1.07	6.65	3.80	1.45	1.44	1.03	.77	.34	.29	.52	.06	e/
37.5	1.53	8.65	5.35	2.30	2.20	1.58	1.22	.57	.43	.75	.12	0.01%
40.0	2.09	10.68	6.99	3.41	3.14	2.33	1.79	.93	.62	1.02	.22	.02
Percentage of workers	100.0	9.0	8.8	5.8	13.3	4.0	7.4	13.5	19.9	7.0	4.4	6.9
Percentage of plants	100.0	3.8	5.7	5.7	9.5	6.7	6.7	11.4	16.2	11.4	6.7	16.2
Average hourly earnings	46.3¢	28.0¢	32.3¢	37.3¢	38.5¢	41.3¢	43.6¢	47.6¢	52.5¢	57.3¢	62.0¢	75.4¢

Source: Computed from Table 9.

a/ It is assumed that those employees receiving less than 25 cents per hour prior to October 24, 1938 were later receiving exactly 25 cents per hour.

b/ Based on labor representing an average of 23.65 percent of total operating costs. The unweighted ratio of labor cost to total operating costs was 23.72 percent.

c/ Average = 28.0 cents. d/ Average = 75.4 cents. e/ Less than 0.01 percent.

be less than one-hundredth of one percent. An increase from the 25-cent minimum to a 40-cent minimum rate would directly increase the operating costs of the lowest wage group of plants by 10.7 percent, but for the highest plant group by only two-hundredths (0.02) of one percent.

These increases in operating costs overstate the direct results of any wage recommendation, since the present statutory minimum is 30 rather than 25 cents per hour. Table 12 presents the direct increases resulting from establishing a higher minimum, calculated on the basis of the existing minimum rate.

For the lowest wage group of plants, paying an average of from 30 to 35 cents per hour, a 35-cent minimum would directly increase operating costs by 2.4 percent and a 40-cent minimum by 5.4 percent; while for the highest wage group of plants, the increases from a 40-cent minimum would amount to only two-hundredths of one percent (0.02%) and to even smaller increases were a minimum of less than 40 cents established.

Throughout these calculations for the plant groups, a ratio of labor to total operating cost of 23.65 percent was used. 1/ Whereas this ratio was found to be that of the industry as a whole, according to results of the cost survey, it would not necessarily be the average for individual plants or groups of plants within the industry. Had this ratio been available for the same plant groups shown in Tables 11 and 12, an exact measurement of the direct increases in operating cost consequent to any given minimum wage could have been computed.

1/ Weighted by Census of Manufactures data as shown in Appendix A. Unweighted ratio was 23.72 percent.

Table 12. — Knitted Outerwear Industry: Estimated Percentage Increases in Total Operating Costs Directly Resulting from the Establishment of Certain Specified Minimum Wage Rates, by Groups of Plants a/

Minimum Wage Rates of: (cents per hour)	All Plants	(Above the 30-Cent Statutory Minimum) Estimated Direct Percentage Increases in Total Operating Costs in Plants Having Average Hourly Earnings of: b/									
		30.0 and under 35.0 cents	35.0 and under 37.5 cents	37.5 and under 40.0 cents	40.0 and under 42.5 cents	42.5 and under 45.0 cents	45.0 and under 50.0 cents	50.0 and under 55.0 cents	55.0 and under 60.0 cents	60.0 and under 65.0 cents	65.0 cents and over c/
32.5	0.30%	1.07%	0.43%	0.41%	0.29%	0.21%	0.10%	0.09%	0.15%	0.01%	d/
35.0	.68	2.39	1.03	.98	.67	.53	.24	.20	.34	.05	d/
37.5	1.14	3.87	1.87	1.73	1.22	.98	.47	.34	.57	.12	0.01%
40.0	1.68	5.43	2.96	2.65	1.97	1.54	.82	.53	.84	.22	.02
Percentage of workers	100.0	17.8	5.8	13.3	4.0	7.4	13.5	19.9	7.0	4.4	6.8
Percentage of plants	100.0	9.5	5.7	9.5	6.7	6.7	11.4	16.2	11.4	6.7	16.2
Average hourly earnings	47.1¢	33.9¢	37.9¢	39.2¢	41.7¢	44.0¢	47.9¢	52.7¢	55.7¢	62.0¢	75.4¢

Source: Computed from Table 10.

a/ It is assumed that those employees receiving less than 30 cents per hour prior to October 24, 1939 are now receiving exactly 30 cents.

b/ Based on labor representing an average of 23.65 percent of total operating costs. The unweighted ratio of labor costs to total operating costs was 23.72 percent.

c/ Average = 75.4 cents.

d/ Less than 0.01 percent.

Nevertheless, although the exact data are not available, the returns from the cost questionnaire give definite indication that the above calculations on increases in operating costs somewhat understate the actual increases for plants paying the highest wages, but exaggerate the increases to the low wage plants.

Thus Tables 11 and 12 reveal that the low wage mills, those paying an average of under 35 cents, represent only 9.5 percent of total plants but employ nearly 18 percent of the workers; while the three highest wage groups of plants, those paying average wages of 55 cents per hour or over, together represent more than one-third of total mills (34.2%) but employ less than one-fifth (18%) of the workers. Those in the intermediary wage groups represent relatively similar proportions of total plants and total employment. It is therefore apparent that low wage plants in this industry are well above average size, while high wage plants are comparatively small. 1/

On the other hand, the cost survey reveals that large mills have lower ratios of labor to total operating costs than do plants of small size. Those with net sales of over $500,000 in 1938 showed an unweighted ratio of labor to total operating cost of 22.46 percent as compared to the industry average of 23.72 and the ratio for small

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1/ This may largely be attributed to the fact that firms in the New York metropolitan area and others mainly producing novelty goods are smaller in size and may pay higher wages than large firms mainly producing staples and located outside of New York.

firms having net sales of less than $50,000 or 31.6 percent. [1] In other words, the data by size of firms indicate that a ratio somewhat above 23.65 percent would generally apply to the high wage firms, so increasing slightly the minute direct increases in total operating costs indicated as resulting from the various possible minima; but that a ratio of less than 23.65 percent would generally apply to the low wage firms, so reducing the amount of increases shown.

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[1] Computed from Appendix A, Table 1i.

C. RELATIVE IMPORTANCE OF THE LOW-AVERAGE GROUPS IN THE INDUSTRY, IN TERMS OF EMPLOYMENT, PRODUCTIVE CAPACITY, AND COMPETITION

The U.S. Bureau of Labor Statistics survey covered 105 plants engaged in the manufacture of knitted outerwear as shown in Tables 8 and 11. These plants employed 7,230 workers. Of the 105 plants covered, 10 (or 9.5 percent) were in the two lowest wage groups, those paying an average of under 35 cents per hour. There were 1,291 workers, or 17.8 percent of the total, employed in these plants. The remaining 91.5 percent of the plants (95 in number) had average hourly earnings of 35.0 cents or over. Those plants employed 5,939 workers, or 82.2 percent of the workers covered by the survey.

The comparatively high percentage of total employment provided by the few low wage plants is probably matched by a comparable ratio of total productive capacity. Data are not available, however, as to the amount of capacity represented by these particular plants, nor as to the type of equipment utilized. On the assumption that these low-wage plants follow the usual characteristics of large mills, namely, that they produce staple rather than novelty goods, they may tend to compete with one another more directly than with the majority of mills which are smaller in size and manufacture styled merchandise. To that extent, the effect of a higher minimum wage on their competitive situation is less serious. Moreover, as was demonstrated, large mills have a low ratio of labor costs to total operating costs as compared to the industry average and particularly to small scale enterprise. This may provide a larger area for compensatory adjustments of overhead and other costs.

Moreover, the declining importance of large units in this industry cannot be ignored. Conditions of over-capacity, easy credit, growth of the contract system, and particularly the increasing emphasis upon style factors have helped to encourage small scale operations. It thus may be true that some large sized concerns are paying less than usual wages in order to offset a competitive disadvantage that is inherent in present-day production techniques.

It should be noted, however, that although the low wage mills appear to be large in size, they represent too small a proportion of the total number or of total employment to justify a conclusion that all or even most large mills characteristically pay low wages.

D. EFFECTS OF VARIOUS MINIMA ON PRICES AND DEMAND IF THE COST INCREASES OF THE LOW-AVERAGE GROUPS OF PLANTS APPEAR TO WARRANT SPECIAL ATTENTION

If, for any reason, there is a demand for the product of manufacturers with low-wage averages which cannot be filled elsewhere, and if these manufacturers are incapable of absorbing or compensating for the increases in labor cost as is done in the case of raw materials cost, they would find it necessary to pass on the labor rise in the form of higher manufacturers' prices. The retailers in turn will either absorb these increases or shift them to the consumer. Such price increases, if mark up ratios are unchanged, would amount to something less than the 2.4 percent increase in operating costs shown in Table 12 as directly resulting from raising the present minimum to 35 cents; or something less than 5.4 percent in the event of a 40-cent minimum.[1]

It should be borne in mind that if retail prices advance enough to cover the cost increases of the low-wage manufacturers, the profits of the relatively high-wage or more efficient producers will tend to increase considerably.

The possibility should also be noted that certain of the low-wage producers may not have relatively high costs of other types but rather may be making exceptional profits by reason of their present low-wage situations.

It is for the Committee to decide whether the low-average-wage plants are of sufficient importance from the standpoint of their employment and competitive positions in the industry to justify special attention being given their cost increases.

III. FACTORS BEARING ON COMPETITIVE CONDITIONS, LEADING TO THE QUESTION OF THE ESTABLISHMENT OF CLASSIFICATIONS (DIFFERENTIALS) AND ON POSSIBLE UNEMPLOYMENT IN SPECIFIC AREAS.

Section 8(c) of the Fair Labor Standards Act states in part:

> "The industry committee for any industry shall recommend such reasonable classifications within any industry as it determines to be necessary for the purpose of fixing for each classification within such industry the highest minimum wage rate (not in excess of 40 cents an hour) which (1) will not substantially curtail employment in such classification and (2) will not give a competitive advantage to any group in the industry, and shall recommend for each classification in the industry the highest minimum wage rate which the committee determines will not substantially curtail employment in such classification."

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[1] The increase would be less since these plants appear to have a smaller than average ratio of labor to operating costs; and further, since increases in prices are slighter than in operating costs (which do not include profits or salaries or returns to management.)

A. BRANCH-OF-INDUSTRY CLASSIFICATION

1. By-product

No evidence has been obtained which points to the existence of separate or relatively homogeneous product branches in this industry. On the contrary, available data reveal that manufacturers ordinarily tend to diversify production among at least two classifications of the many types of knitted outerwear garments or accessories now being marketed. These data are shown in Table 13.

According to the compilation of reports made to Davison's Knit Goods Trade, 1938, sweaters of various kinds represent the only product group to which an appreciable percentage of manufacturers (25.1 percent) confined themselves. However, 602 mills or nearly 75 percent of the total engaged in sweater production, and only one-third of these manufactured sweaters exclusively. Bathing suits constitute the second most important product of the industry, but only 10 concerns were listed as producing bathing suits alone. Nearly all bathing suit manufacture was found to be combined with that of sweaters or other outerwear. Only 12 establishments were confined to the production of neckwear and only 6 to headwear, both of which are minor product groups. Of the 49 plants reporting production of infants' wear, only 16 or less than one-third manufactured infants' wear alone.

It may be mentioned that during N.R.A., producers of woven infants' and children's outerwear proposed the inclusion of knitted infants' and children's outerwear in the Code for their industry. For this reason, when the Knitted Outerwear Code was approved in December, 1933, a stay was granted with respect to this group pending decision as to proper designation. Upon further examination, the stay was

Table 13 -- Knitted Outerwear Industry: Classification of Establishments by Products Manufactured, 1938.

Classification of Products	Firms producing specified number of classifications of products	
	Number	Percent of Total
Total establishments	813 [a]	100.0
One classification only	265	32.6
Sweaters [b]	204	25.1
Infants' Wear	16	2.0
Neckwear	12	1.5
Bathing suits	10	1.2
Headwear	6	0.7
Links and Links goods	9 [c]	1.1
Other	8	1.0
More than one classification	548 [d]	67.4
Sweaters and one or more other [e]	398	49.0
Infants' wear and one or more other	33	4.1
Other	117 [e]	14.4

Source: Compiled from Davison's Knit Goods Trade, 1938 Edition.

[a] In addition, 10 firms failed to report products manufactured.

[b] Includes knitted jackets, sweater-coats, vests and other sweater types.

[c] May include several classifications of garments.

[d] 224 of these firms produced more than 2 classifications of products.

[e] Excluding infants' wear.

[f] 50 of these firms report broad classifications such as "sportswear" which may include two or more of the classifications listed above.

terminated March 16, 1934, and infants' and children's wear producers were specifically included under the jurisdiction of the Knitted Outerwear Code.[1/]

Table 13 reveals, in brief, that less than one-third of total knitted outerwear plants (32.6 percent) produced only one classification of garment; and only 7.5 percent of the total exclusively produced any single classification of knitted outerwear other than sweaters.

2. By type of manufacturer

Conceivably it might be argued that regular manufacturers, contract-employers, and contractors constitute separate classifications in this industry which warrant separate treatment. However, an examination of their respective structures reveals that this could hardly be the case.

Regular manufacturers perform all the productive processes necessary to convert the yarn into finished knitted garments. On the other hand, neither contract-employers nor contractors carry on the complete functions of manufacture. Rather, these are divided between the two types of organizations, the one supplementing the other, just as the finishing department of a mill supplements the knitting department. Therefore, there are not three separable and complete manufacturing units in the industry, but two: (1) regular manufacturers; and (2) contractors in combination with contract-employers.

These two units perform identical functions insofar as the

1/ N.R.A. Work Materials No. 80, p. 282, and N.R.A. Codes of Fair Competition, Vol. 4, p. 201.

manufacture of knitted outerwear is concerned; produce similar or identical types of garments; and are in competition with one another in every respect for all garment classifications that are produced by both types of units.[1] It therefore appears that no lower wage minimum could be set for either unit, without conferring a competitive advantage upon that group.

No data on distribution of earnings for factory workers are available which distinguish between regular manufacturers and contractors, nor are there data on their respective costs ratios. Moreover, such cost figures, if compiled, would not be comparable, since the labor cost ratio for regular manufacturers would be based on total operating costs including raw materials, whereas in the case of contract establishments the ratio would fail to take this major cost factor into account.

A final reason which invalidates any separate classification of regular manufacturers, contract-employers, or contractors is that their respective positions are subject to constant change. As was described in Part I of this report, regular manufacturers can turn readily to contract production; contractors can similarly become regular manufacturers; or either type of firm can simultaneously operate in both capacities on different lots of garments. Also contract-employers can confine themselves to regular wholesaling; regular

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1/ The 1937 Census of Manufactures reports contract establishments producing every classification of knitted outerwear except headwear and neckties. However, most contract work is confined to the production of sweaters, infants' wear, and miscellaneous garments classified as "other outerwear." Contractors accounted for 16.1, 52.9, and 26.3 percent, respectively, of total value of product for these three classifications.

wholesalers can become contract-employers; or firms can operate in both capacities on different merchandise.

B. REGIONAL CLASSIFICATIONS

Section 8(c) of the Act states further:

> "In determining whether such classifications should be made in any industry, in making such classifications, and in determining the minimum wage rates for such classifications, no classification shall be made, and no minimum wage rates shall be fixed, solely on a regional basis, but the industry committee and the Administrator shall consider among other relevant factors the following:
>
> "(1) competitive conditions as affected by transportation, living, and production costs.
>
> "(2) the wages established for work of like or comparable character by collective labor agreements negotiated between employers and employees by representatives of their own choosing; and
>
> "(3) the wages paid for work of like or comparable character by employers who voluntarily maintain minimum-wage standards in the industry."

The available data bearing on factors specified for consideration under this section of the Act are presented below.

1. Distribution of employees' hourly earnings, by region

It may be recalled that of the 26,139 wage earners reported by the 1937 Census, more than half (55.1 percent) were employed by mills located in the Middle Atlantic region; about one-sixth (16.1 percent) in the East North Central region; and one-tenth (10.4 percent) in New England states. The remaining 18.4 percent were located in various other sections of the United States, but concentrated mainly on the Pacific Coast.[1]

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[1] Over 6 percent of the total were located in California. The number for Oregon was not separately stated, in order to avoid disclosure of employment within one exceptionally large firm in that State.

The U. S. Bureau of Labor Statistics Survey did not provide wage distributions for those several regions, since it was found that employment in separate states or sections outside of the New York metropolitan area was not sufficient to provide a reliable sample. For that reason, data for the industry as a whole can be compared only with the New York area [1] which, according to the 1937 Census, accounted for 6,692 wage-earners or 25.6 percent of the total reported.

Information provided by the Bureau of Labor Statistics reveals that in the New York metropolitan area, as for the industry as a whole, earnings ranged from under 17.5 cents to over $1.20 per hour in August and September, 1938. However, at that time, earnings in New York were higher than for the entire industry, averaging 60.7 cents, as compared to 45.8 cents per hour.

The percentage of workers receiving less than specified minimum wages in the New York area as compared to the industry total is indicated in Table 14.

Table 14 -- Knitted Outerwear Industry: Percent of Employees Receiving Less Than Certain Specified Hourly Earnings.

Hourly Earnings	Percent of Employees Receiving Less Than Specified Hourly Earnings	
	United States Total	New York Metropolitan Area
Less than 30.0 cents	20.8	6.4
Less than 32.5 cents	27.3	10.2
Less than 35.0 cents	32.7	13.8
Less than 37.5 cents	40.4	17.0
Less than 40.0 cents	46.6	20.8

Source: Data compiled by U.S. Bureau of Labor Statistics, August and September, 1938.

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[1] As classified by the Census, this area includes New York City, Newark, and Jersey City metropolitan areas.

The relatively high wages paid by firms in the New York area are clearly evident. However, as was stated in the discussion on this topic for the industry as a whole, the percentages of workers whose wages would be increased by any given minimum cannot be used as an indication of the resultant increase in the wage bill, because these low-wage employees receive far less than a proportionate share of total pay rolls. Still less does it provide an indication of resulting increases in total operating costs.

2. Effects of various minimum wage rates on wage bills and on total operating costs.

The estimated direct increases in the wage bill for firms located in New York as compared to the industry average consequent to any given minimum are presented in Table 15.

On the basis of the recent 25-cent statutory minimum, a 35-cent minimum would directly increase the wage bill for the New York area by 1.2 percent as compared to 4.5 for the industry as a whole. The corresponding percentages for a 40 cent-minimum would be 2.6 and 8.8 respectively.

On the basis of the 30-cent statutory minimum, the 35-cent rate would occasion direct increases of but 0.8 percent in New York and 2.9 percent for the entire industry. A 40-cent minimum would bring about increases of 2.2 percent in New York as compared to 7.1 percent for the industry average.

In estimating the direct increases in total operating costs for firms located in the New York area, the weighted industry average ratio of labor costs to total operating costs of 23.65 percent was used.

Table 15 -- Knitted Outerwear Industry: Estimated Percentage Increases in the Wage Bill Directly Resulting From the Establishment of Certain Specified Minimum Wage Rates

Minimum Wage Rates of: (Cents per hour)	Estimated Direct Percentage Increases In the Wage Bill	
	United States Total	New York Metropolitan Area
Above the 25-cent statutory minimum a/		
30.0	1.61%	.37%
32.5	2.91	.71
35.0	4.52	1.21
37.5	6.49	1.84
40.0	8.83	2.62
Above the 30-cent statutory minimum b/		
32.5	1.28%	0.34%
35.0	2.87	.83
37.5	4.81	1.46
40.0	7.12	2.24

Source: Computed from U.S. Bureau of Labor Statistics data of August and September, 1938.

a/ It is assumed that those employees receiving less than 25 cents per hour prior to October 24, 1938, were thereafter receiving exactly 25 cents per hour.

b/ It is assumed that those employees receiving less than 30 cents per hour prior to October 24, 1939, are now receiving exactly 30 cents per hour.

This was done for want of Census data to provide a basis for a regional weighting of the responses from firms to the Economic Section's cost questionnaire. However, the unweighted ratio for New York mills was 23.3 percent, and this difference of only 0.35 percent is so small as not to affect the percentage increases in operating costs presented in Table 16.

New York firms show no significant direct increase in total operating cost resulting even from a 40-cent rate, regardless of whether those increases are calculated from the previous 25-cent minimum or from the present 30-cent statutory minimum. However, although the corresponding percentage increases for the industry as a whole are higher for any specified minimum, these too appear to be rather small.

There are, of course, both high wage plants and low wage plants in producing centers outside of New York as well as in that area.[1] It is, therefore, apparent that differences in the effects of various minima on operating costs are demonstrated more clearly by the earlier comparisons between plants classified according to average wages paid rather than by comparisons based on location of firm.

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[1] For example, in New York State, the averages for individual plants varied from 24.2 cents to $1.00 per hour in August and September, 1938. In Pennsylvania, the plant averages ranged from 29.2 to 81.0 cents; and on the Pacific Coast, from 36.5 to 69.9 cents hourly. These data indicate that factors other than location occasion the wide differences in plant averages. (Bureau of Labor Statistics Survey, op. cit., p. 48)

Table 16 -- Knitted Outerwear Industry: Estimated Percentage Increases in Total Operating Costs Directly Resulting From the Establishment of Certain Specified Minimum Wage Rates. a/

Minimum Wage Rates of: (Cents per hour)	Estimated Direct Percentage Increases in Total Operating Costs	
	United States Total	New York Metropolitan Area c/
Above the 25-cent statutory minimum b/		
30.0	.38%	.09%
32.5	.69	.17
35.0	1.07	.29
37.5	1.53	.44
40.0	2.09	.62
Above the 30-cent statutory minimum c/		
32.5	0.30%	0.08%
35.0	.68	.20
37.5	1.14	.35
40.0	1.68	.53

Source: Computed from Table 15.

a/ Based on the weighted industry average of labor representing 23.65 percent of total operating costs. The unweighted ratio of labor costs to total operating costs was 23.72 percent. The unweighted average ratio for firms in the New York metropolitan area was 23.3 percent. This difference was too small to affect the percentages given above. Moreover, no Census data on value of product classifications by region, for purposes of weighting the sample, are available.

b/ It is assumed that those employees receiving less than 25 cents per hour prior to October 24, 1938, were thereafter receiving exactly 25 cents per hour.

c/ It is assumed that those employees receiving less than 30 cents per hour priorto October 24, 1939, are now receiving exactly 30 cents per hour.

(3) Extent of unionization, and wage rates in union agreements

It is estimated that there are over 10,000 union members in this industry, or more than 38 percent of the total factory employment reported by the 1937 Census.[1] Of these, the vast majority are affiliated with the International Ladies Garment Workers Union.

The union is centered in the New York metropolitan area and in Philadelphia. In New York, from 5,000 to 6,000 workers in about 150 shops were covered by union contracts.[2] Philadelphia is the second most important center of union organization, and about 2,000 employees under union contract were reported in that producing area.[3] The remaining union membership is scattered through eight smaller producing centers in New England, the Middle West, and on the Pacific Coast.[4]

Data relating to minimum wages and maximum hours provisions contained in union agreements are presented in Table 17.

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[1] The U.S. Bureau of Labor Statistics states that no well supported data are available as to union membership, but that available material indicates approximately 20,000 I.L.G.W.U. members in the knitted outerwear and underwear industries combined, and that underwear may be less well organized than outerwear.

[2] Interview with Mr. Lazare Teper, International Ladies Garment Workers Union, September 1939. The Bureau of Labor Statistics estimate was 6,000 workers, representing nearly the entire employment in the New York area.

[3] Knitted Outerwear Manufacturers Association, Pennsylvania District, Letter to the Chief Economist, Wage and Hour Division, August 18, 1939.

[4] Mr. Harold L. Lhowe, National Knitted Outerwear Manufacturers' Association, indicated that about 36 establishments under union contract in Philadelphia accounted for 70 percent of the sales volume in that center. Union shops in New England accounted for 20 percent, in Cleveland 30 percent, and in the Pacific Coast 15 percent of the sales volume in those respective areas.

Table 17 -- Knitted Outerwear Industry: Wage and Hour Provisions in International Ladies Garment Workers Union Agreements, as of October 1939.

Location of Firms Covered by Specific Agreements	Number of Firms Covered by Specific Agreements	Weekly Hours	Indicated Minimum Hourly Wage	Range of Occupational Minima
New York, N. Y.	60 a/	35	$0.40	$0.43 - $1.40
" " "	73	35	0.40	0.43 - 1.40
" " "	1	40	0.35	0.40 - 1.25
Jersey City, N. J.	1	b/	c/	d/
Philadelphia, Penn. e/	31	40	0.35	0.40 - 0.63
" "	1	40	0.35	f/
" "	1	40	f/	f/
" "	1	40	b/	f/
Central Falls, R.I.	1	40	b/	b/
" " "	1	40	0.35	g/
Pawtucket, R. I.	1	40	0.35	b/
Lowell, Mass.	1	40	b/	b/
Bay City, Mich.	1	40	0.35 h/	b/
Minneapolis, Minn.	1	i/	i/	i/
Milwaukee, Wisc.	1	40	0.35	b/
San Francisco, Calif.	2	40	0.40 j/	b/
" " "	1	40 k/	0.45 l/	b/
" " "	1	40 k/	0.45 m/	0.50 - 1.00 n/

Source: The International Ladies Garment Workers Union.

a/ United Knitwear Manufactures' League. This estimate provided by Mr. Harold L. Lhowe, National Knitted Outerwear Association, Interview of October 4, 1939.
b/ No specific provisions.
c/ $14 per week - hours not specified.
d/ $17 " " " " "
e/ In addition, contracts for two other Philadelphia concerns were not reported.
f/ Provision is made for fixing piece rate.
g/ To be fixed by agreement between union and employer.
h/ For piece workers.
i/ Details not available. $16.50 per week is provided for "full fledged finishers" and 74¢ per hour for pressers. Hours are either 40 or 35 per week depending on type of garment manufactured at the time.
j/ Minimum for stock and shipping departments; 45¢ for manufacturing employees.
k/ 35 hours on night shift.
l/ 50¢ for night shift.
m/ 50.7¢ for night shift.
n/ 55.7¢ to $1.057 for night shift.

The table reveals that in New York City separate contracts involve 74 firms in addition to about 60 that are included under a collective agreement with the United Knitwear Manufacturers' League. In Philadelphia, 36 concerns are covered and contracts are also reported for 12 concerns located in other producing centers.

None of the contracts show minima of less than 35 cents per hour. On the other hand, all but one firm under contract in New York City have a minimum of 40 cents per hour. Two of the four San Francisco contracts also have minima of 40 cents per hour while the other two show a 45-cent minimum. Some contracts simply provide machinery for setting wage rates but do not specify the hourly minima.

In general, a 40-hour week prevails for firms outside of New York, while a 35-hour week is practically universal within the New York industrial area. The range of the occupational minima is shown only for New York, Philadelphia and for one concern in San Francisco. In New York the one concern with a 35-cent general minimum had occupational minima ranging from $0.40 to $1.25 per hour while the range for the other firms was from $0.43 to $1.40 hourly. In Philadelphia occupational minima are recorded for 31 concerns, ranging from $0.40 to $0.63. The range for one San Francisco concern is from $0.50 to $1.00.

The range gives but a general idea of the wage structure in union plants. A more detailed understanding can be obtained by examining the minima for specific occupations. These are available for the New York establishments under union contract and shown in Table 18. Most of the occupational minima are well above the 40 cent general minimum provided in New York contracts. The hourly minima for knitters range from $0.83 to $1.14, for finishers and examiners from $0.51 to

Table 18 -- Knitted Outerwear Industry: Occupational Minima in Union Plants in the New York Metropolitan Area as of October 1939.

Occupation	Specified Minimum	
	Rate Per 35-Hour Week	Rate Per Hour
Mechanics	$ 49.00	$ 1.40
Power knitters	29.00	0.83
Hand knitters	40.00	1.14
Hand knitters, trimmings only	30.00	0.86
Warpers	33.00	0.94
Winders (up to 20 spindles) a/	20.00	0.57
Cloth seamers and brushers	18.00	0.51
Separators, thread clippers, boxers or folders	15.00	0.43
Examiners (men's, boys' and sweater houses only)	18.00	0.51
Examiners on sportswear	22.00	0.63
Finishers	22.00	0.63
Finisher-helpers	19.00	0.54
Garment pressers: A-Shops b/	37.50	1.07
" " B-Shops c/	32.00	0.91
" " Shops making only sweaters	28.00	0.80
Marker and machine cutters	45.00	1.29
Machine cutters	37.50	1.07
Spreaders	27.00	0.77
Operators, A-Shops b/		
Singer operators	36.00	1.03
General operators	21.00	0.60
Operators, B-Shops c/		
Singer operators	29.00	0.83
General operators, shops making sweaters only	20.00	0.57
Operators, men's and boys' shops		
Singer operators	25.00	0.71
General operators	19.00	0.54
Merrow operators	25.00	0.71
Merrow seamers	19.00	0.54
Drop stitch menders	25.00	0.71
All around menders	30.00	0.86
Miscellaneous d/	20.00	0.57

Source: International Ladies Garment Workers Union.

a/ $1.00 for each additional spindle.

b/ A-Shops: Manufacturing garments sold to jobbers at price above $4.75 for a three-piece suit.

c/ B-Shops: Manufacturing garments sold to jobbers at $4.75 or less for a three-piece suit, except if made of frill yarn, chenille, boucle, ratteen or similar material, price of $4.75 may be applicable to a two-piece suit.

d/ Special machines - Overlocking machines, union special button sewers, button hole tape and blind stitch machines.

$0.63, pressers $0.80 to $1.07, markers and cutters $0.77 to $1.29, and operators $0.54 to $1.03.

Data collected by the Bureau of Labor Statistics (Table 19) reveal that in August and September 1938 hourly earnings of employees in union plants located in the various producing centers were generally higher than in non-union plants. For example, the proportion of total employees receiving less than 40 cents per hour was 31.8 percent in trade-union plants as compared with 53.4 percent in non-trade-union plants. Conversely, the trade-union plants showed a greater proportion being paid much higher rates, 26.4 percent receiving over 62½ cents per hour as compared with 11.8 percent in other plants.

Table 19 -- Knitted Outerwear Industry: Distribution of Workers According to Average Hourly Earnings in Trade Union and Non-Trade-Union Plants, August and September, 1938.

Average Hourly Earnings a/	Trade-union plants		Non-trade-union plants	
	Percent of Workers	Cumulative percent	Percent of Workers	Cumulative percent
Under 25 cents	3.1	3.1	12.6	12.6
25.0 and under 27.5 cents	2.6	5.7	6.5	19.1
27.5 " " 30.0 "	3.3	9.0	7.1	26.2
30.0 " " 32.5 "	3.7	12.7	7.8	34.0
32.5 " " 35.0 "	4.7	17.4	5.8	39.8
35.0 " " 37.5 "	7.8	25.2	7.6	47.4
37.5 " " 40.0 "	6.6	31.8	6.0	53.4
40.0 " " 42.5 "	7.2	39.0	6.5	59.9
42.5 " " 52.5 "	22.6	61.6	19.6	79.5
52.5 " " 62.5 "	12.0	73.6	8.7	88.2
62.5 " " 72.5 "	9.1	82.7	4.1	92.3
72.5 " " 92.5 "	10.3	93.0	4.2	96.5
92.5 and over	7.0	100.0	3.5	100.0

Source: U. S. Bureau of Labor Statistics, special tabulation as of August and September, 1938.

a/ Employees receiving less than 35 cents per hour in trade-union plants are understood to be learners.

(4) Transportation and living costs differences

Data with respect to regional differences in transportation costs of knitted outerwear and of raw materials utilized by this industry; and data with respect to regional differences in cost of living are contained in separate sections of this report, and appended.

APPENDIX A

APPENDIX A

KNITTED OUTERWEAR INDUSTRY: SURVEY ON COSTS
ECONOMIC SECTION, WAGE AND HOUR DIVISION, AUGUST, 1939

I. Description:

The Economic Section cost survey is based upon data received in response to a questionnaire sent in August, 1939 to approximately 800 concerns. The mailing list was made available by the National Knitted Outerwear Association which further assisted in this study by writing to the same concerns, urging full cooperation.

The major purpose of the survey was to provide the Committee with a composite picture of the cost structure of the industry in terms of labor, materials, and other operating costs. Information was also obtained as to salaries and returns to management and profits or losses, as well as on wholesale and retail prices of volume sellers.

The data requested cover all operations for the entire year, 1938. A sample of the questionnaire is shown on the following page.

II. Coverage:

A total of 178 replies were received. Of these, 58 contained no data on knitted outerwear production, since the concerns either were not manufacturers but rather agents or regular wholesalers, or were not in business during the entire year, 1938. Among this latter group, some were firms that closed down during that year, and others were new concerns opening during 1938 or more recently.

The 120 firms which provided complete returns on the questionnaire reported aggregate net sales of $27,488,000. They

SAMPLE QUESTIONNAIRE

Return to: Economic Section
Wage and Hour Division
10th and D Street Building
U. S. Department of Labor
Washington, D. C.

The following information is needed for presentation to the Knitted Outerwear Committee at hearings which will be held in the near future for the purpose of considering a minimum wage recommendation under the Wage and Hour Law for the Knitted Outerwear Industry. Data received from all firms will be averaged together to obtain a composite picture for the industry as a whole, and therefore all data for individual firms will be kept strictly confidential. Your cooperation is greatly desire in immediately answering and returning this questionnaire.

(All data should be for the entire year, 1938)

1. Name of firm ______________________________
2. Location: (City) ______________ (State) ______________
3. Total value of net sales: $ ______________
4. Products manufactured and price of volume items (as follows):

	(a) Percent of Total Net Sales Value	(b) Price of Volume Seller (1) Wholesale (per dozen)	 (2) Retail (apiece)
Sweaters, cardigans, and jerseys (except infants'):	______%	$______	$______
Bathing suits (except infants'):	______%	$______	$______
Suits and dresses (except infants'):	______%	$______	$______
Infants' wear (all types):	______%	$______	$______
Neckwear (neckties, scarfs, mufflers, etc.):	______%	$______	$______
Knitted headwear (except infants'):	______%	$______	$______
Other knitted outerwear:	______%	$______	$______
TOTAL	100 %		

5. Expenses: (For the entire year, 1938, list the following expenses as percentages of net sales for your plant as a whole. If you manufacture products other than knitted outerwear, include only knitted outerwear expenses and sales).

Expenses	Percent of Net Sales
A. Total materials (include yarn, trim, packaging and any other materials):	______%
B. Total labor (except pay to salesmen, and salaries or returns to executives and owners):	______%
C. Other direct manufacturing expenses, total overhead, and selling and financial expenses (except salaries or returns to executives and owners):	______%
D. Salaries and returns to executives and owners, and profits or losses (If a net loss, the total will equal more than 100%):	______%
TOTAL = NET SALES	100 %

represented 18.0 percent of total establishments and 25.7 percent of total value of product as reported by the 1937 Census of Manufactures.

III. Representative Character of Sample:

These returns were classified by size of plant as indicated by value of net sales. The tabulation was made for the same size groups as used by the Census for value of product, shown in Table i. The table indicates that the net sales of the sample varied from 17.8 percent of the value product reported by the Census for plants of the largest size, to 37.4 percent in the size group with value of product ranging from $500,000 to $999,000. In order to weight the sample in each classification by its relative importance as reported by the Census, the percent of total value represented by each classification in the Census was divided by the comparable ratio in the sample. This resulted in a weighting factor for each size classification which, when applied to the sample cost returns, gave each size group the relative weight of those classifications for the industry as a whole, as reported by the Census. This procedure enabled the average cost ratios derived from the sample returns to reflect average conditions in the entire industry insofar as the replies from firms of the different size groups were representative of other firms in the industry of the same size. The weighting factor was used only to compute the average for all firms reporting. No Census data were available to weight the replies within each size class.

The complete tabulations are contained in tables i to ix following, with the exception of price data for volume sellers, which were presented in the section on wholesale price, Part I of this report (Table 36).

Table i. — Knitted Outerwear Industry: Classification of Total Establishments by Value of Product, 1937, and of Establishments in Sample by Value of Net Sales, 1938.

Classification by Value of Annual Product	Census (1937)			Sample (1938)			Weighting Factor	Percent Value of Net Sales in Sample to Census
	Number of Establishments	Value of Product for Group	Percent Total Value	Number of Establishments	Value of Net Sales in Group	Percent of Total Net Sales		
$5,000 to $19,999	153	$1,908,904	1.8	9	$ 125,582	0.4	4.50	29.6
20,000 to 49,999	163	5,324,267	5.0	18	536,315	1.9	2.63	26.5
50,000 to 99,999	109	7,793,249	7.3	24	1,591,944	5.8	1.26	20.4
100,000 to 249,999	128	21,366,304	20.0	34	5,296,676	19.3	1.04	24.8
250,000 to 499,999	66	22,148,725	20.7	20	6,896,411	25.1	.82	31.1
500,000 to 999,999	33	22,685,086	21.2	12	8,480,815	30.9	.69	37.4
1,000,000 to 2,499,999	15	25,609,504	24.0	3	4,560,304	16.6	1.45	17.8
2,500,000 and over	2	–	–	0	–	–	–	–
TOTAL	669	$106,836,039	100.0	120	$27,487,947	100.0	–	25.7

Source: Census of Manufactures, 1937 and Economic Section Cost Survey, August 1939.

Table ii -- Knitted Outerwear Industry: Ratios of Labor Costs to Operating Costs, by Groups of Plants Classified According to Value of Net Sales, 1938.

Classification of Plants by Value of Net Sales	Aggregate Operating Costs (Amount)	Aggregate Labor Costs	
		Amount	Percentage of Operating Costs
Total	$26,247,913	$6,225,583	23.65 a/
$ 5,000 and under $ 20,000	111,139	30,064	27.1
20,000 " " 50,000	478,721	156,556	32.7
50,000 " " 100,000	1,491,187	354,437	23.8
100,000 " " 250,000	5,073,838	1,135,384	22.4
250,000 " " 500,000	6,607,136	1,744,397	26.4
500,000 " " 1,000,000	8,148,536	1,927,291	23.7
1,000,000 " " 2,500,000	4,337,356	877,454	20.2

a/ Weighted by ratios derived from 1937 Census data on value of product for the same plant classifications. The unweighted ratio of labor costs to operating costs was 23.72 percent.

Table iii -- Knitted Outerwear Industry: Distribution of Sample Firms by Ratio of Labor Cost to Operating Cost, and value of Net Sales for Each Group, 1938.

Percentage: Labor Cost to Operating Cost	Plants			Aggregate Net Sales of Group		
	Number	Percent		Amount	Percent	
		Simple	Cumulative		Simple	Cumulative
Total	120	100.0	100.0	$27,487,947	100.0	100.0
Under 10%	4	3.3	3.3	1,497,199	5.4	5.4
10 and under 15	3	2.5	5.8	1,327,385	4.8	10.2
15 " " 20	31	25.9	31.7	5,609,460	20.4	30.6
20 " " 25	33	27.6	59.3	10,377,343	37.8	68.4
25 " " 30	19	15.9	75.2	3,380,955	12.3	80.7
30 " " 35	13	10.8	86.0	3,159,565	11.5	92.2
35 " " 40	7	5.8	91.8	453,874	1.7	93.9
40 " " 45	4	3.3	95.1	1,136,669	4.1	98.0
45% and over	6	4.9	100.0	545,597	2.0	100.0

Table iv -- Knitted Outerwear Industry: Ratios of Total Materials Costs to Operating Costs, by Groups of Plants Classified According to Value of Net Sales, 1938.

Classification of Plants by Net Sales	Aggregate Operating Costs (Amount)	Aggregate Raw Materials Cost	
		Amount	Percentage of Operating Costs
Total	$26,247,913	$15,091,401	57.03 a/
$ 5,000 and under $ 20,000	111,139	54,743	49.3
20,000 " " 50,000	478,721	247,722	51.7
50,000 " " 100,000	1,491,187	896,556	60.1
100,000 " " 250,000	5,073,838	3,009,123	59.3
250,000 " " 500,000	6,607,136	3,835,327	58.0
500,000 " " 1,000,000	8,148,536	4,676,762	57.4
1,000,000 " " 2,500,000	4,337,356	2,371,168	54.7

a/ Weighted by ratios derived from 1937 Census data on value of product for the same plant classifications. The unweighted ratio of materials costs to operating costs was 57.49 percent.

Table v -- Knitted Outerwear Industry: Ratios of Other Direct Manufacturing Costs, Total Overhead, and Selling and Financial Costs (Except Salaries or Returns to Executives and Owners) to Operating Costs, by Groups of Plants Classified According to Value of Net Sales, 1938.

Classification of Plants by Net Sales	Aggregate Operating Costs (Amount)	Other Direct Manufacturing Costs, etc.	
		Amount	Percentage of Operating Costs
Total	$26,247,913	$4,930,959	19.32 a/
$ 5,000 and under $ 20,000	111,139	26,332	23.7
20,000 " " 50,000	478,721	74,443	15.6
50,000 " " 100,000	1,491,187	240,194	16.1
100,000 " " 250,000	5,073,838	929,361	18.3
250,000 " " 500,000	6,607,136	1,027,412	15.5
500,000 " " 1,000,000	8,148,536	1,544,483	18.6
1,000,000 " " 2,500,000	4,337,356	1,088,734	25.1

a/ Weighted by ratios derived from 1937 Census data on value of product for the same plant classifications. The unweighted ratio to operating costs was 18.8 percent.

Table vi. -- Knitted Outerwear Industry: Ratios of Salaries and Returns to Management and Profits (or losses) to Net Sales, All Firms Reporting by Size Groups, 1938.

Classifications by Net Sales	Net Sales (Amount)	Salaries, Returns, Profits or Losses	
		Amount	Percentage of Net Sales
Total	$27,487,947	$1,805,937	6.84% a/
$ 5,000 and under $ 20,000	125,582	24,764	19.7
20,000 " " 50,000	536,315	55,936	10.4
50,000 " " 100,000	1,591,944	141,437	8.9
100,000 " " 250,000	5,296,676	330,317	6.2
250,000 " " 500,000	6,896,411	566,841	8.2
500,000 " " 1,000,000	8,480,715	462,095	5.4
1,000,000 " " 2,500,000	4,560,304	224,547	4.9

a/ Weighted by 1937 Census data on value of product for the same plant classifications. The unweighted ratio was 6.6 percent.

Table vii -- Knitted Outerwear Industry: Ratios of Salaries, Returns, and Profits, to Net Sales of Firms Showing Net Profits, by Size Groups, 1938.

Classifications by Net Sales	Net Sales (Amount)	Salaries, Returns and Profits	
		Amount	Percentage of Net Sales
Total	$17,372,780 a/	$1,176,993	6.8% b/
$5,000 and under $20,000	78,788	18,303	23.2
20,000 and under 50,000	415,426	42,951	10.3
50,000 " " 100,000	1,065,722	77,433	7.3
100,000 and under 250,000	2,546,982	179,301	7.0
250,000 " " 500,000	4,146,172	370,287	8.9
500,000 " " 1,000,000	5,789,690	291,114	5.0
1,000,000 and under 2,500,000	3,330,000	197,604	5.9
2,500,000 and over	-	-	-

a/ This represents 63.2 percent of total net sales of firms reporting. There were 73 firms showing profits, or 61.7 percent of the total number reporting and representing 63.2 percent of the total net sales. In addition, one firm with net sales of close to $41,000 showed neither a profit nor a loss.

b/ Unweighted.

Table viii - Knitted Outerwear Industry: Ratios of Salaries and Returns to Net sales, and of Net Losses to Net Sales for Firms showing Net Losses, By Size Groups, 1938.

Classifications by Net Sales	Net Sales (Amount)	Salaries, Returns to Executives & Owners		Net Losses	
		Amount	Percentage of net sales	Amount	Percentage of net sales
Total	$10,074,167 a/	$628,944	6.2%	$570,795	5.7 b/
$5,000 and under $20,000	46,794	6,461	13.8	10,321	22.1
20,000 " " 50,000	79,889	12,985	16.3	3,234	4.0
50,000 " " 100,000	526,222	64,004	12.2	40,680	7.7
100,000 and under 250,000	2,749,694	151,016	5.5	107,479	3.9
250,000 " " 500,000	2,750,239	196,554	7.1	277,566	10.1
500,000 " " 1,000,000	2,691,025	170,981	6.4	129,916	4.8
1,000,000 " " 2,500,000	1,230,304	26,943	2.2	1,599	c/

a/ This represents 36.6 percent of total net sales of firms reporting in the cost questionnaire. There were 46 firms showing losses, or 38.3 percent of the total number of firms reporting; and representing 36.6 percent of the total net sales.

b/ Unweighted.

c/ Less than 1/10 of 1 percent.

Table IX. -- Knitted Outerwear Industry: Ratios of Labor Costs to Operating Costs, by Groups of Plants in the New York Metropolitan Area, Classified According to Value of Net Sales, 1938.

Classification of Plants by Net Sales	Aggregate Operating Costs (Amount)	Aggregate Labor Costs	
		Amount	Percentage of Operating Costs
Total	$4,594,986	$1,068,436	23.3 a/
$ 5,000 and under $ 20,000	22,208	8,127	36.6
20,000 " " 50,000	160,721	43,456	27.0
50,000 " " 100,000	748,260	182,509	24.4
100,000 " " 250,000	1,356,213	301,447	22.2
250,000 " " 500,000	490,436	94,242	19.2
500,000 " " 1,000,000	1,817,148	438,655	24.1
1,000,000 " " 2,500,000	--	--	--

a/ Unweighted.

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